

MAGNITUDE AND FREQUENCY
OF MISSOURI FLOODS

by E. H. Sandhaus
and
John Skelton

WATER RESOURCES

REPORT 23

MAGNITUDE AND FREQUENCY

OF

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John Skelton

Water Resources Division, U. S. Geological Survey

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ABSTRACT

This report presents the results of a statistical analysis of available floodflow information from streams in the State of Missouri.

Equations are presented for estimating the magnitude of future floods with recurrence intervals of 1.2, 2.33, 5, 10, 25, and 50 years at ungaged sites on most Missouri streams. Only two basin characteristics, drainage area and the average slope of the stream, are required to solve the equations.

The appendices to the report contain information on peak stages and discharges at gaging stations and miscellaneous sites, and flood-frequency data for gaging stations.

INTRODUCTION

A knowledge of the magnitude and probable frequency of flooding is necessary in flood plain zoning and in the design and location of structures such as dams, bridges, culverts, levees, water-supply and sewage-disposal plants, and industrial buildings. For many projects, the most practical structural design is based on floods that may be exceeded at intervals averaging 10, 25, or 50 years. The method of flood-frequency analysis presented in this report will provide data which are sufficient for many of these design problems where loss of life is not involved and data which are useful for comparative purposes when other methods of design are employed.

The purpose of the report is to present, for the State of Missouri, (1) a method for determining the frequency and magnitude of floods on ungaged streams, (2) a tabulation of observed peak stages and discharges, and (3) a tabulation of flood-frequency data for stream-gaging stations.

The report was prepared by the Water Resources Division of the U. S. Geological Survey under the supervision of Anthony Homyk, District Chief; in cooperation with the Missouri Geological Survey and Water Resources, Dr. W. C. Hayes, State Geologist; the Missouri State Highway Commission, M. J. Snider, Chief Engineer; and U. S. Bureau of Public Roads. M. A. Benson, A. R. Green, and D. M. Thomas, hydraulic engineers of the Washington, D. C. office of the U. S. Geological Survey, provided valuable technical advice and assistance during the preparation of the report.

This report is a revision and extension of Geological Survey Circular 370 "Floods in Missouri, Magnitude and Frequency" by Searcy (1955). It contains the analysis of an additional 13 years of streamflow record, collected in cooperation with the Missouri Geological Survey, the Corps of Engineers, the Missouri Highway Commission, and other agencies and includes

station records which were too short for publication in Circular 370.

The opinions, findings, and conclusions expressed in this publication are not necessarily those of the Bureau of Public Roads.

DEFINITION OF TERMS AND CONVERSION OF UNITS

Hydrologists often use terms and concepts that are unfamiliar to others. A few of the terms used in this report are defined here.

1. Continuous-record station.-- A site on a stream where continuous records of discharge are obtained.
2. Cubic feet per second (cfs).-- The unit expressing rate of discharge. One cfs is the rate of discharge of a stream having a cross-sectional area of 1 square foot and an average velocity of 1 foot per second.
1 cfs = 0.646 million of U. S. gallons per day
3. Miscellaneous site.-- A site on a stream where data are collected during floods or droughts to give better areal coverage to those events. There is no systematic data collection at these sites.
4. Partial-record station.-- A site on a stream where flood-peak and/or low-flow data are collected systematically over a period of years.
5. Recurrence interval.-- The average interval of time within which the given flood will be exceeded once. Recurrence intervals are averages and do not imply regularity of occurrence; an event of 50-year recurrence interval might be exceeded in consecutive years or it might not be exceeded in a 100-year period. Putting it another way, a 50-year flood has a 2-percent chance of being exceeded in any one year.
6. Water year.-- The 12-month period October 1 to September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1966 is called the 1966 water year.

DESCRIPTION OF AREA

Topography

Missouri has four distinct topographic divisions: in the north, glaciated plains; in the west, plains or prairie; in the extreme southeast, lowlands; and between them, the Missouri Ozarks, part of the Ozark uplift.

The plains section, including glaciated plains in the north and unglaciated plains in the west, comprise nearly all the area north of the Missouri River, and a large area south of the river in the western part of the State. The eastern part of the area is generally an undulating prairie with rolling hills, while the western part is more hilly. Elevations range from 450 feet above sea level near the Mississippi River to 800-1,000 feet above sea level on the western plains. The region has numerous wide, flat valleys cut by the rivers that drain it.

The Ozarks comprise about half the State. It is a rugged area of deep, narrow valleys, with sharp ridges separating the valleys. Elevations range from 1,000 to more than 1,600 feet above sea level.

The Southeastern Lowlands is a relatively flat region of about 3,000 square miles. Elevations range from 230 to 300 feet above sea level over most of the area. Crowley's Ridge, about 500 feet above sea level, lies diagonally across the area. The region is well drained

for the most part by a system of drainage ditches and canals and contains excellent farmland.

Climate

Missouri is an inland state with a continental climate; that is, the weather is changeable with large variations in temperature and precipitation. The average annual precipitation ranges from 32 inches in the northwest to 48 inches in the southeast, and the average annual temperature range from northwest to southeast is 12.2 to 15.0 degrees Celsius (Centigrade).

The state's total seasonal snowfall from year to year ranges from 5 to nearly 40 inches and averages about 18 inches, but it seldom plays an important part in the occurrence of floods.

Summer rainfall frequently occurs as thundershowers which are occasionally severe. At times, more than 10 inches of rainfall have been recorded in 24 consecutive hours. The world's most severe recorded rainfall, a total of 12 inches in 42 minutes, was measured at Holt, Missouri, on June 22, 1947 (U. S. Department of Commerce, Weather Bureau, 1960).

SEASONAL DISTRIBUTION OF FLOODS

A knowledge of the seasonal distribution of floods is necessary for many purposes, including planning for construction in an area subject to flooding. A study of seasonal flood distribution in Missouri revealed that the state receives more rainfall and experiences more flood peaks in June than in any other month. The study also revealed that spring rainfall produces greater flood peaks than equivalent amounts of rain in the fall. In the spring, the ground is more saturated, resulting in more rejection of rainfall and more runoff.

In general, floods in Missouri are more likely to occur during June, with March and April in second and third place respectively. Floods are least likely to occur during the 3 month period, November through January.

METHODS OF ANALYSIS

Analysis of Flood Records

The flood-frequency analysis used in this report involved three distinct operations.

The first step in the statewide flood-frequency analysis was the compilation of flood records collected from the network of streamgaging stations throughout the state. Appendix I contains a complete listing of these records for 280 gaging stations and miscellaneous sites, and Plate 1 shows the geographic distribution of the sites.

The next step in the analysis was the determination of flood-frequency data from the flood records of gaging stations throughout the state. These data were computed for 208 gaging stations in Missouri which met the following criteria:

1. Ten or more annual peak discharges available.
2. More than 25-percent difference in drainage area between gaging stations located on the same stream.
3. Flood peaks not materially affected by regulation. Flood record prior to regulation by reservoirs was used for some stations.
4. Adequate definition of the stage-discharge relation.

For each of the 208 sites a flood-frequency curve was defined using methods suggested by Dalrymple (1960, pp. 7-24):

1. Annual peak discharges were listed for each station selected for frequency analysis.

2. The peaks were arranged in order of magnitude and recurrence intervals computed by the formula $RI = \frac{N+1}{M}$, where RI is recurrence interval in years, N is the number of years of record, and M is the rank, starting with the highest as 1.
3. Each peak flow was plotted against its respective recurrence interval on a special graph paper, and a relation line drawn through the plot as shown in Figure 1. The graph paper is designed to produce a straight-line relation if the flood peaks conform to an extreme-value distribution (Gumbel, 1958) but for the Missouri flood records, many relations were found to be curves. Recurrence intervals are less accurately computed for the extreme floods than for average floods in each record. For this reason, extreme floods were given less weight than average floods when drawing the curves.

Magnitudes of the 1.2, 2.33, 5, and 10-year recurrence interval floods were determined from each of the 208 frequency curves and tabulated for use in the next step of the analysis. For those sites where the flood record was of adequate length so that the frequency curve could confidently be drawn to the 25-year and 50-year recurrence interval, the magnitude of these floods was also tabulated. Appendix II contains the tabulation of flood-frequency data for unregulated gaging stations in Missouri.

Reliability of Station Frequency Curves

Flood-frequency data at streamgaging stations are the basis for a regional analysis. The reader may well ask, "How reliable is the foundation upon which every premise in this report is based?"

Obviously, flood magnitudes or frequencies computed from short-time records may vary from the true, long-term value. Benson (1960) made a study of the variations in frequency curves computed from short records and reached the conclusions shown in Table 1.

Table 1. Length of record necessary to define a flood within 25 percent of the correct value 95 and 80 percent of the time.

Recurrence interval of flood (years)	Length of record necessary (years)	
	95 percent of the time	80 percent of the time
2.33 -----	12	--
10 -----	18	8
25 -----	31	12
50 -----	39	15

The data in Table 1 are based on an array of 1,000 hypothetical annual floods rather than actual flood events, and they indicate the variations resulting from chance alone where frequency data are based on records from a single station.

The length of flood records from small drainage areas in Missouri range from 12 to 25 years; therefore, the prediction of rare flood events from these limited data could be considerably in error. However, these records are the best hydrologic tools available for small drainage area studies in the state. Collection of flood data from small drainage areas and the search for simpler, more accurate methods of frequency analysis are continuing.

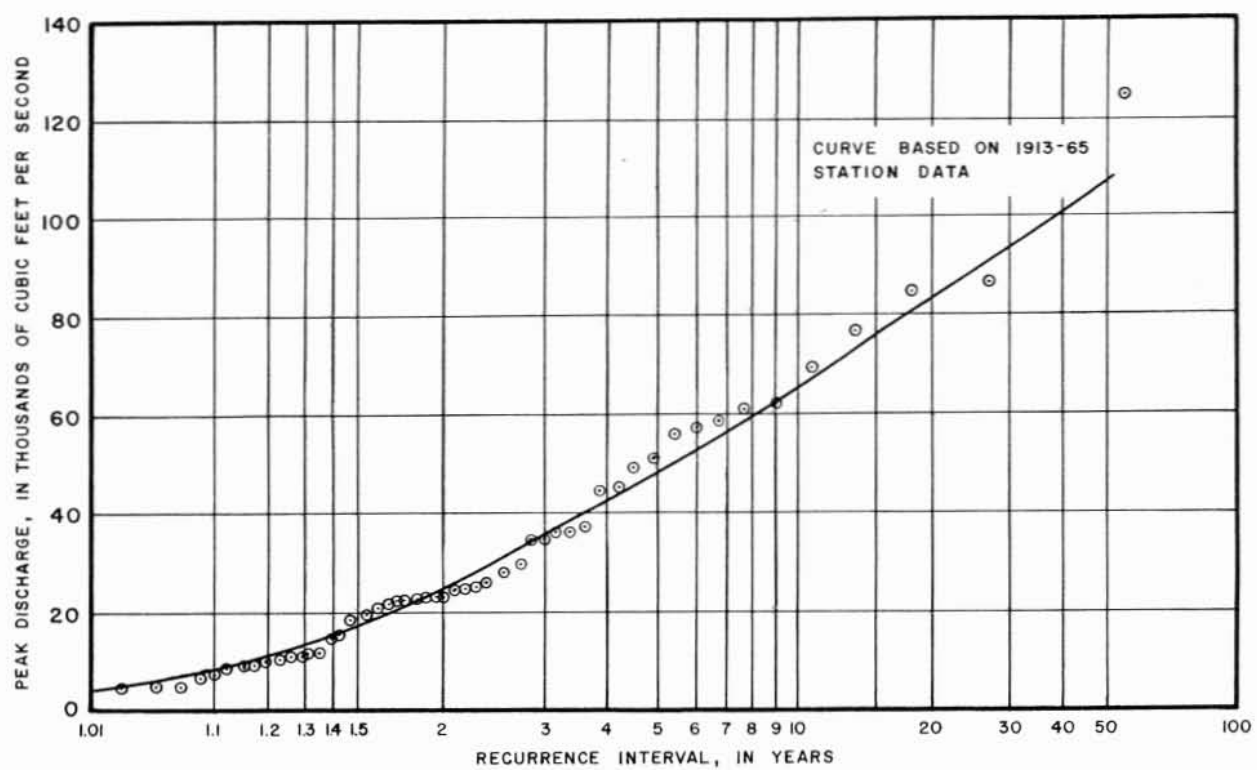


Figure 1. Flood-frequency curve for Current River at Van Buren, Missouri.

Collection of flood records in Missouri began with large drainage areas; as a result, long-time flood records in the state have been collected from drainage areas greater than 50 square miles. Estimates of flood frequency at these stations, as shown by Benson's study, are sufficiently accurate for most design purposes where loss of life or great property damage are not involved.

Definition of Statewide Flood-Frequency Equations

Statewide flood-frequency equations were defined for this report by multiple regression techniques similar to those described by Benson (1962). These equations are a composite of hydrologic experience in Missouri and should be used to compute estimates of flood magnitude and frequency at ungaged sites in the state.

Multiple regression is a statistical technique for evaluating the relation between a dependent variable and one or more independent variables. For this analysis of Missouri floods, the dependent variable was a characteristic selected from each of the 208 frequency curves, and the independent variables were measures of the differences between the 208 drainage basins. Results of a regression analysis are a mathematical expression of the best possible relation between the variables along with several statistics that evaluate both the overall accuracy of the relation and the usefulness of each independent variable used.

Basin Characteristics

There are many possible measures for the differences between drainage basins. Six selected for use as independent variables in this study are as follows:

1. Drainage area (A), in square miles.
2. Slope (S), in feet per mile (average slope between points 10 and 85 percent of total main stem distance upstream from the gage).
3. Mean annual precipitation (P), in inches.
4. Elevation (E), in feet (mean sea level at gaging station).
5. Forest cover (F), in percent of basin.
6. Length of main channel (L), in miles, from gage to divide.

Values of these six indices were computed for each of the 208 stations.

Regression Analysis

The many calculations required for regression analysis were performed on an electronic digital computer. The procedure used was to submit to the computer a dependent variable, for example the 1.2 year flood for each of the 208 sites, along with the six basin characteristics for these sites. The mathematical relation along with the evaluation statistics were determined for this set of data. The computer then automatically recomputed another relation and evaluation statistics that omitted the least effective basin characteristic. This process of recomputation, omitting the least effective basin characteristic, was repeated until only one basin characteristic remained. At this point the computer began computations on a new set of data, for example the 2.33 year floods as dependent variables, along with the six basin characteristics as independent variables. The entire set of calculations produced six relations for each of the six independent variables.

Analysis of the statistics obtained from the computer program revealed that only two independent variables, area and average slope, should be included in the equations defining the frequency and magnitude of floods in Missouri. These two factors were found to be statistically significant at the 99 percent effectiveness level for all relations. Two other basin characteristics, mean annual precipitation and elevation, were significant in two of the equations, but were eliminated from consideration because their inclusion only slightly improved the accuracy of the relations as indicated by the standard error of estimate.

Statewide Flood-Frequency Equations

The equations defined from the statistical analysis are presented in Table 2 and can be used to estimate magnitude and frequency of floods on most streams in Missouri (for exceptions, see subsequent section "Limitations of Equations").

The interpretation of the standard error of estimate column in Table 2 should be made in the following ways, using the equation for the 50-year flood as an example.

1. A statement that the actual value for the 50-year flood lies within 1 standard error (36.9 percent) of that obtained from the equation will be correct 2 out of 3 times, on the average.
2. A statement that the actual value for the 50-year flood lies within two standard errors (73.8 percent) of that obtained from the equations will be correct 19 times out of 20, on the average.

The values of the standard error are given so that the user will be able to evaluate the accuracy of results from the equations.

Table 2. Equations for determining magnitude and frequency of Missouri floods.

Frequency of flood (years)	Magnitude of flood (cfs)	Standard error of estimate (percent)
1.2 -----	$61.5 A^{.651} S^{.191}$	50.7
2.33 -----	$72.3 A^{.719} S^{.330}$	44.1
5 -----	$82.3 A^{.743} S^{.411}$	44.8
10 -----	$90.1 A^{.757} S^{.462}$	45.6
25 -----	$74.8 A^{.776} S^{.654}$	36.9
*50 -----	$70.4 A^{.804} S^{.680}$	36.9

*Fifty-year flood-frequency estimates at gaging stations were obtained from data for drainage areas in excess of 50 square miles. There is no evidence to support the use of the 50-year equation for drainage areas less than 50 square miles.

The solution of the flood-frequency equations is somewhat laborious; therefore, graphical solutions to the equations are presented in Figure 2.

Analysis of residual errors. Residual errors are defined as the ratio of observed values to the values computed from the equations. A ratio of 1.00 indicates an exact agreement

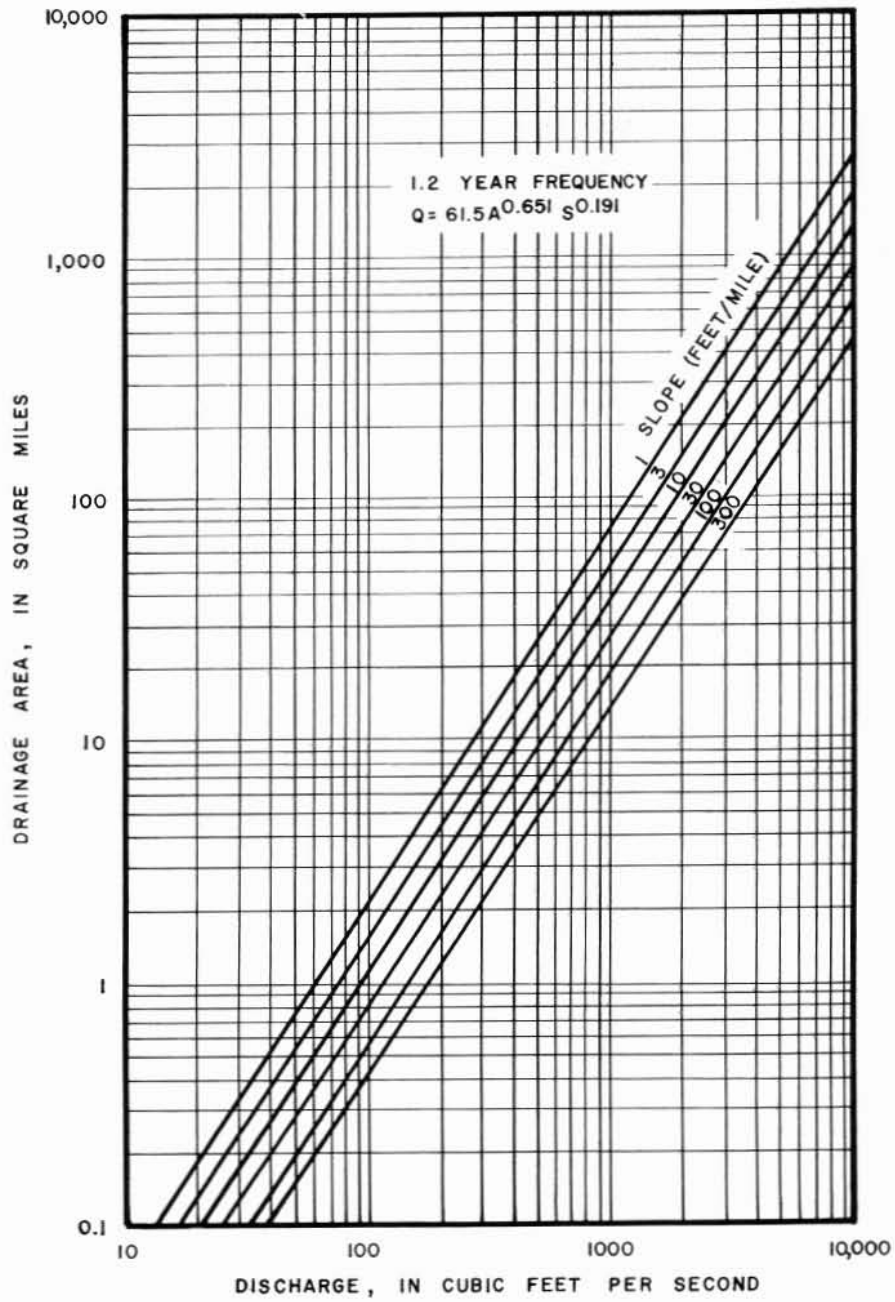


Figure 2a. Graphical solution of 1.2-year equation.

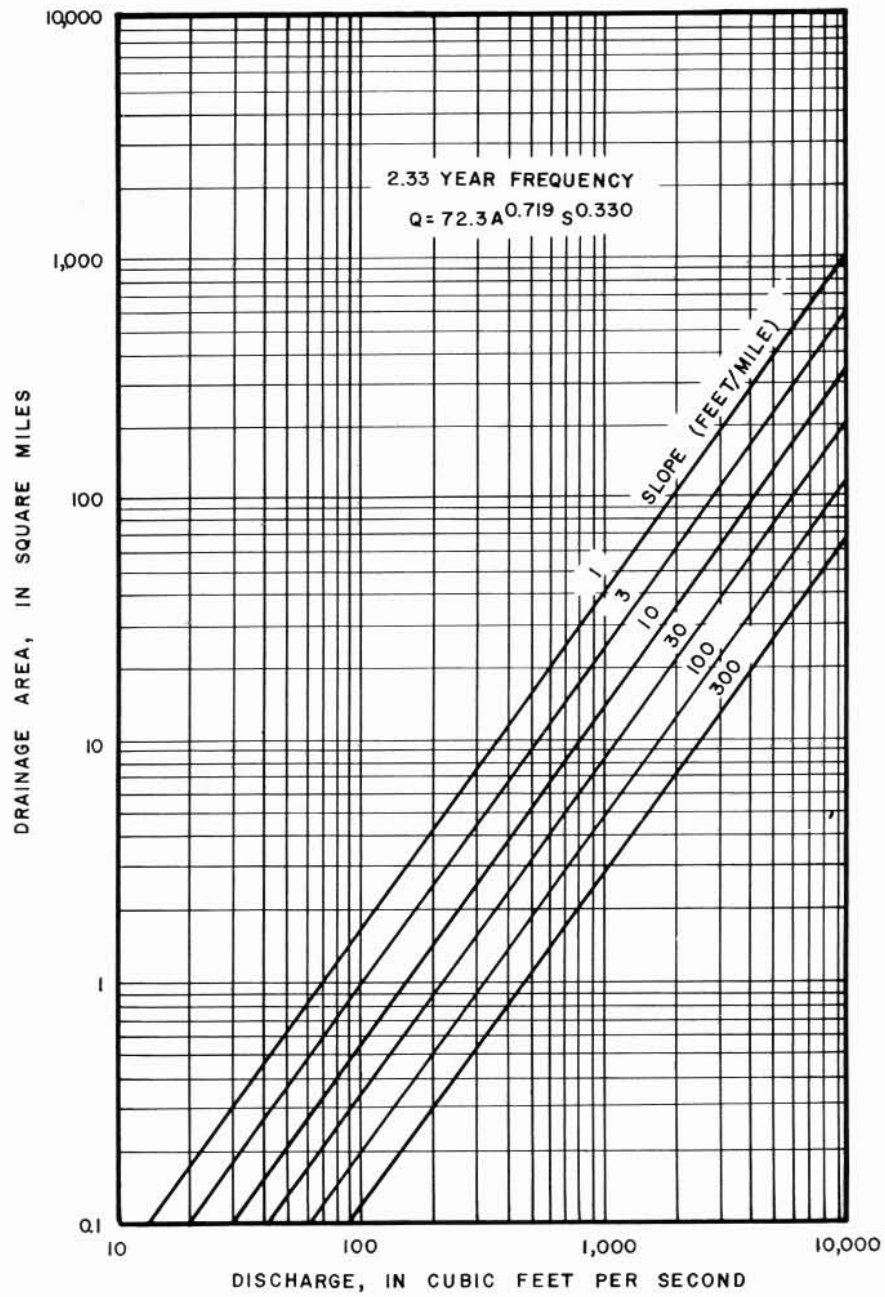


Figure 2b. Graphical solution of the 2.33-year equation.

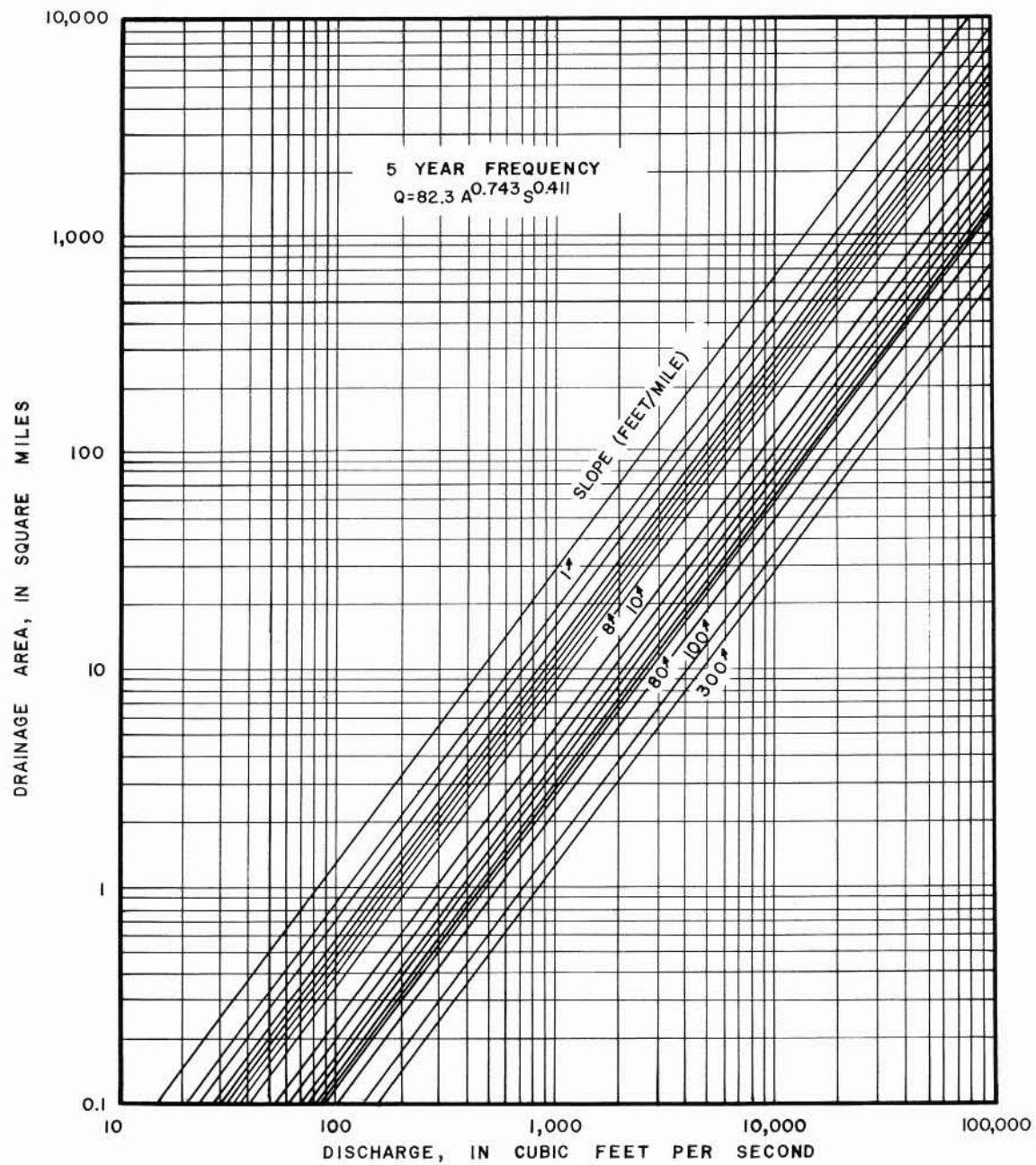


Figure 2c. Graphical solution of the 5-year equation.

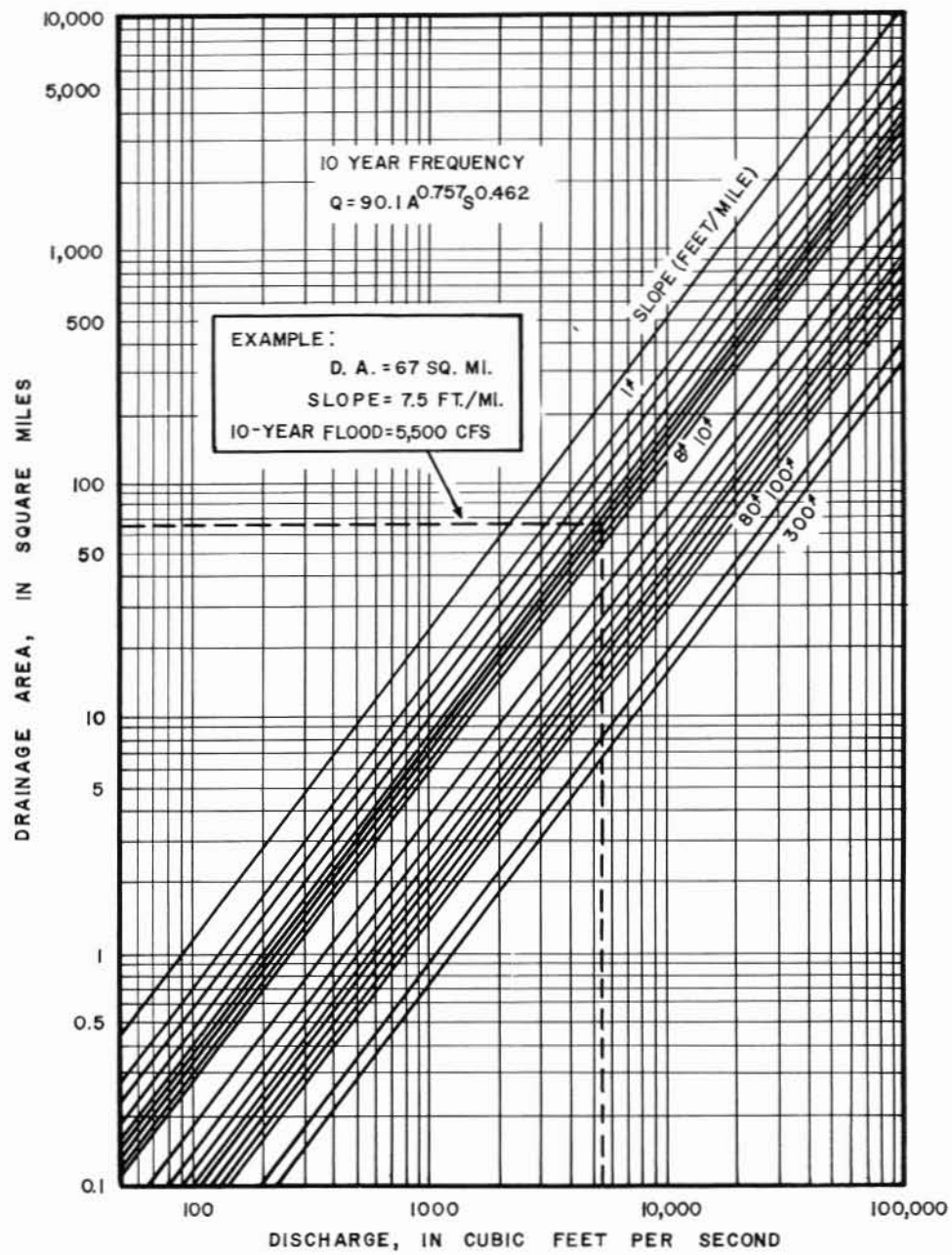


Figure 2d. Graphical solution of the 10-year equation.

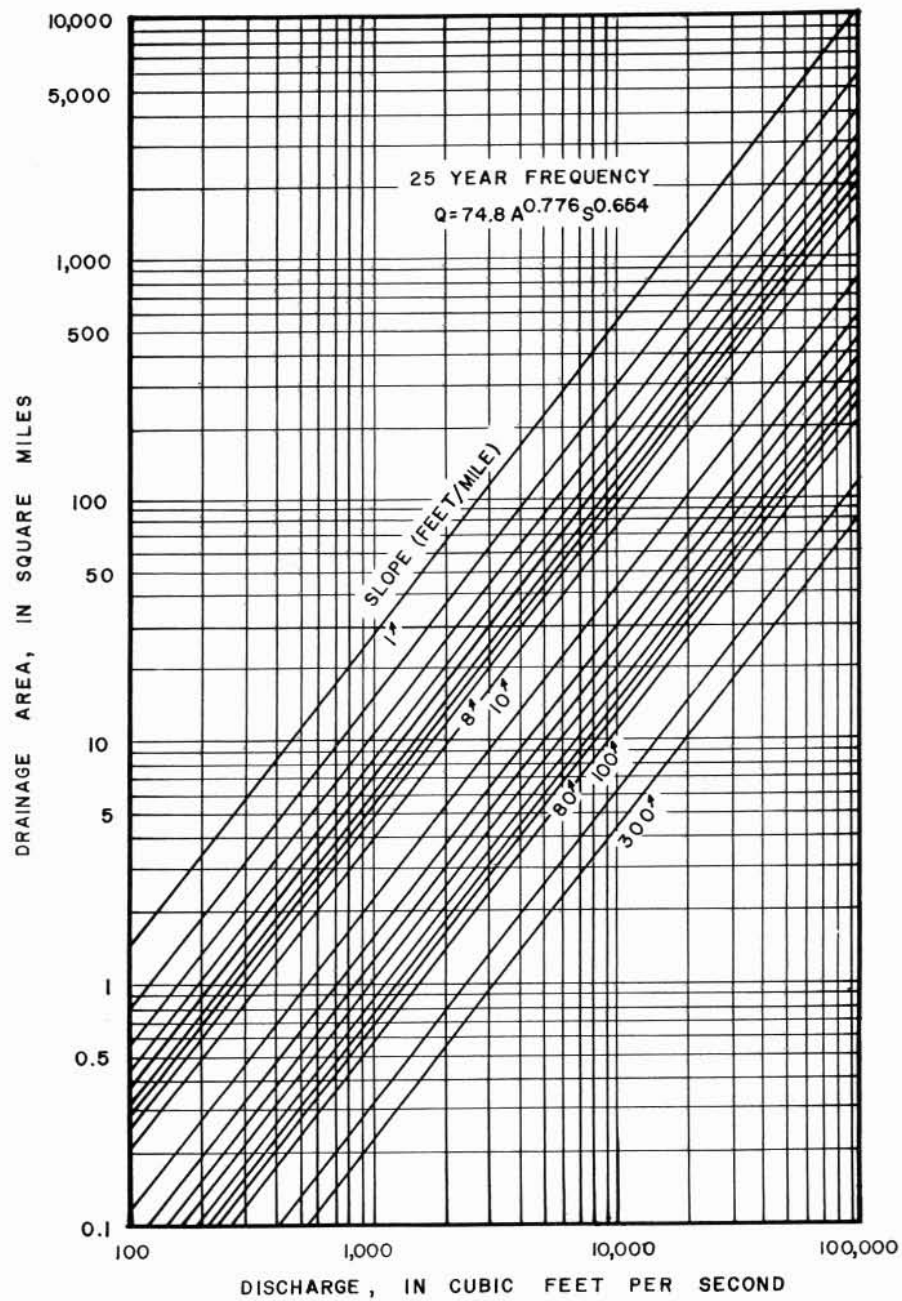


Figure 2e. Graphical solution of the 25-year equation.

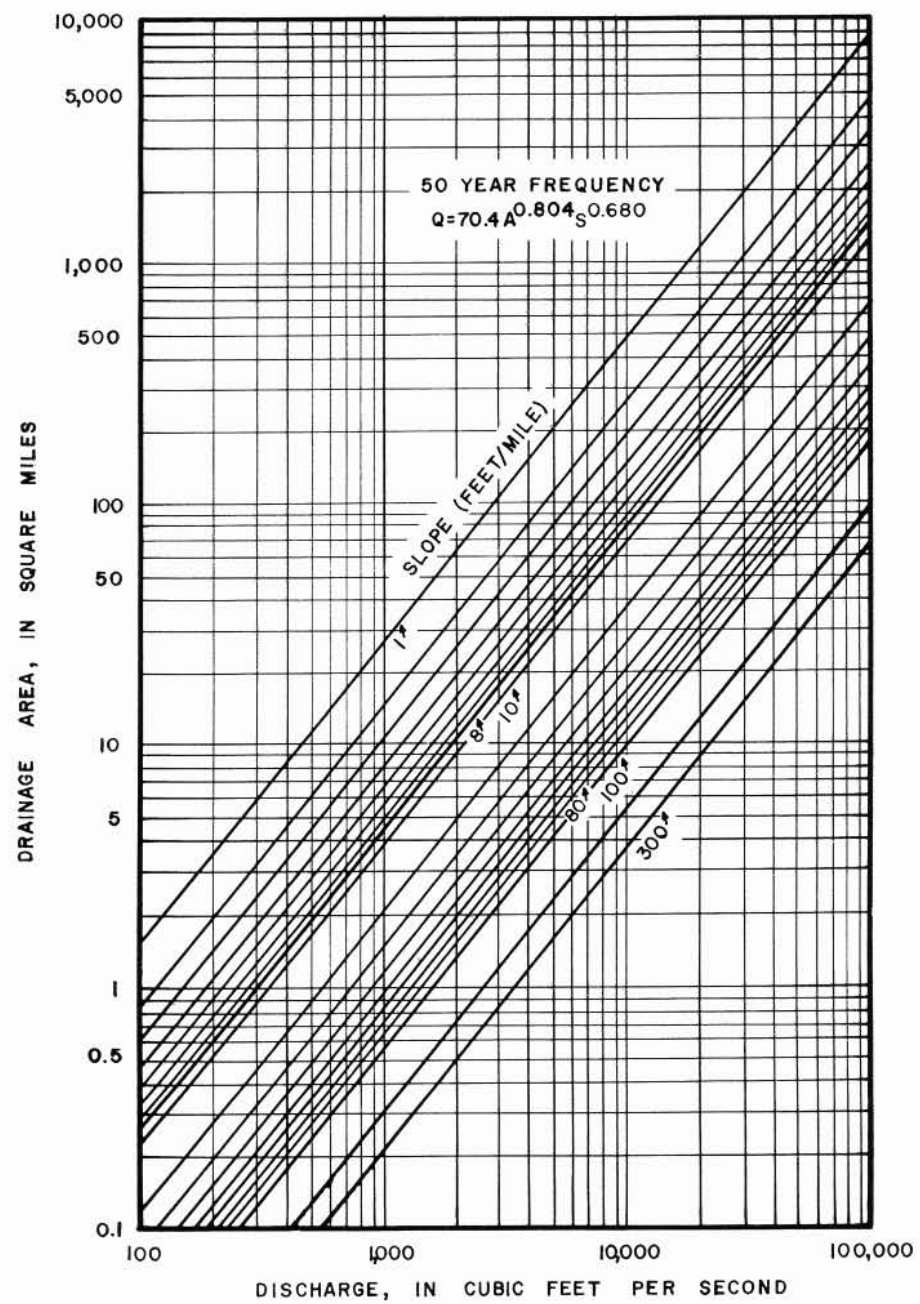


Figure 2f. Graphical solution of the 50-year equation.

between observed and computed values, whereas a large departure from 1.00 indicates a large disagreement. These ratios are an expression of the validity of the equations. If a residual pattern exists in an area, some significant hydrologic variable has been omitted from the analysis for that area, and a geographic correction factor must be applied to the appropriate equation.

Residuals were computed for each of the equations and were plotted on separate maps to determine if any geographic patterns existed. The resulting plots showed a random distribution pattern and no geographic corrections were considered necessary.

Application of equations. The use of flood-frequency equations may be illustrated by a hypothetical problem. Assume that a consultant wishes to design a structure that will pass a flood with a recurrence interval of 10 years. The following steps would be necessary in computing the magnitude of this flood:

1. Determine the size of the contributing drainage area from the best topographic maps available. For this example, assume a drainage area of 67.4 square miles.
2. Compute average slope of the streambed. This should be done as follows: (a) determine elevations from a topographic map at points along the main stem which are 10 percent and 85 percent of the total distance from the proposed site to the basin divide, (b) find the arithmetic difference between these elevations and divide by the distance between the points.

For this problem, assume that the length of the main stem upstream from the site of the structure is 26.7 miles, the elevation at the 10 percent point (2.7 miles) is 500 feet and the elevation at the 85 percent point (22.7 miles) is 650 feet. The average slope of the streambed is $\frac{650 \text{ feet} - 500 \text{ feet}}{20 \text{ miles}}$ or 7.5 feet per mile.

3. Select applicable equation from Table 2 and compute flood magnitude. For this problem, the equation is as follows:

$$\begin{aligned} \text{10-year flood} &= 90.1 A^{.757} S^{.462} \\ &= (90.1) (67.4)^{.757} (7.5)^{.462} \\ &= 5,520 \text{ cfs} \end{aligned}$$

or,

select applicable graphical solution. For this problem, Figure 2d should be used. Interpolating between slopes of 7 and 8 feet per mile provides a value of 5,500 cfs for the 10-year flood.

Limitations of equations. The flood-frequency equations in this report may be used to estimate frequency and magnitude of floods on most Missouri streams. However, the equations do not apply near the mouths of streams draining into larger streams because of backwater effect.

The equations are not applicable to the Mississippi and Missouri Rivers or to regulated interior streams in the state, nor do they apply in areas of extensive man-made changes. Flood frequency relations for the Upper Mississippi River are presented by Patterson and Gamble (in press) and for the Lower Mississippi River by Patterson (1964). Flood characteristics of the Missouri River above Sioux City, Iowa, are presented by Patterson (1966) and

for the river below Sioux City by Matthai (in press).

The equations for 1.2-year to 25-year floods are applicable for streams with drainage areas of 0.1 to 10,000 square miles. The 50-year equation should be used only for drainage areas greater than 50 square miles.

SUMMARY

1. Observed flood data are the basis for statewide flood-frequency equations.
2. Analysis of the statistics obtained from a computer program revealed that the two independent variables, drainage area and average slope, have the greatest effect on flood frequency in Missouri.
3. Flood-frequency equations are a composite of regional hydrologic experience. They should be used to estimate flood magnitude and frequency at ungaged sites on most Missouri streams.
4. Equations are provided for estimating flood frequency for drainage areas between 0.1 and 10,000 square miles.
5. The statewide equation should not be used to estimate the 50-year flood if the drainage area at a proposed site is less than 50 square miles.
6. The distribution of residual errors for the equations was random, and therefore no geographic corrections were necessary.

SELECTED REFERENCES

- Benson, M. A., 1960, Characteristics of frequency curves based on a theoretical 1,000 year record in Dalrymple, Tate, 1960, pp. 51-74.
- _____, 1962, Factors influencing the occurrence of floods in a humid region of diverse terrain: U. S. Geol. Survey, Water-Supply Paper 1580-B, 64 pp.
- Decker, Wayne L., 1955, Monthly precipitation in Missouri: Univ. of Missouri, Agri. Expt. Sta. Bull. 650, 60 pp.
- Dalrymple, Tate, 1960, Flood frequency analyses: U. S. Geol. Survey, Water-Supply Paper 1543-A, 80 pp.
- Gumbel, E. J., 1958, Statistics of extremes: New York, Columbia Univ. Press, 375 pp.
- Irza, T. J., 1966, Preliminary flood-frequency relations for small streams in Kansas: U. S. Geol. Survey open-file report, 19 pp.
- Matthai, H. F., Magnitude and frequency of floods in the United States, Part 6B, Missouri River below Sioux City, Iowa: U. S. Geol. Survey, Water-Supply Paper 1680 (in press).
- Patterson, J. L., 1966, Magnitude and frequency of floods in the United States, Part 6A, Missouri River above Sioux City, Iowa: U. S. Geol. Survey, Water-Supply Paper 1679, 471 pp.
- _____, 1964, Magnitude and frequency of floods in the United States, Part 7, Lower Mississippi River basin: U. S. Geol. Survey, Water-Supply Paper 1681, 636 pp.
- _____, and Gamble, Charles R., Magnitude and frequency of floods in the United States, Part 5, Hudson Bay and Upper Mississippi River basins: U. S. Geol. Survey, Water-Supply Paper 1678 (in press).
- Searcy, J. K., 1955, Floods in Missouri, magnitude and frequency: U. S. Geol. Survey, Circ. 370, 126 pp.
- Schwob, Harlan H., 1966, Magnitude and frequency of Iowa floods: Iowa Highway Research Board Bull. 28, pt. 1, 47 pp.
- U. S. Department of Commerce, Weather Bureau, December 1960, The world's heaviest rains, in Daily Weather Map, Forecast for District of Columbia and vicinity, December 1, 1960.
- Wood, Horace W., 1942, Flood flow on Missouri streams: Univ. of Missouri, Agri. Expt. Sta. Bull. 30, 86 pp.

APPENDIX I

Flood Records at Missouri Gaging Stations and Miscellaneous Sites

This appendix contains a description of all gaging stations and miscellaneous sites where flood records are available, and a listing of flood peaks through the 1965 water year. It is divided into two parts, with Part I containing information collected at continuous-record and partial-record stations, and Part II presenting flood data collected at miscellaneous sites.

In Part I, station records are presented in downstream order in accordance with the system currently used in U. S. Geological Survey Water-Supply Papers. Downstream order numbers precede the station name and locate the station in relation to drainage basin and downstream direction along the main stem. The part of the station number preceding the dash indicates the major drainage basin in which the station is located. Missouri stations are in three major basins: Part 5, the Hudson Bay and Upper Mississippi River basins; Part 6, the Missouri River basin; and Part 7, the Lower Mississippi River basin. In numbering, no distinction is made between continuous-record and partial-record gaging stations. Following the station name are descriptive paragraphs containing information on the location, drainage area upstream from the gage, average slope¹ between points 10 and 85 percent of the total main stem distance upstream from the gage, type of gage, definition of the stage-discharge relation, bankfull stage, and base for the partial-duration series. Flood data are tabulated following the descriptive paragraphs. At most continuous-record stations all peaks that exceed the selected base are listed. At some continuous-record and all partial-record stations, only the annual peaks are listed. Underlines in the table of peak stages and discharges have the following significance:

1. Line in water year column means a discontinuous record.
2. Line beginning at date column and continuing through discharge column means a change in site and datum.
3. Line in date and discharge column means a change in site without a change in datum.
4. Line in gage height column means a change in datum only.
5. No underlines are used for changes in site and datum if records have been adjusted to present conditions.

Part II contains a listing of miscellaneous sites in downstream order, a brief reference to nearby towns, the size of drainage area upstream from the site, and the date and discharge of the maximum flood observed at the site.

All gaging stations and miscellaneous sites are shown on the location map, Plate 1.

¹Values of average slope are point data. Do not interpolate between points on the same stream or extrapolate the data to other basins.

PEAK STAGES AND DISCHARGES AT CONTINUOUS-RECORD AND PARTIAL-RECORD STATIONS

MISSISSIPPI RIVER MAIN STEM

5-4745. Mississippi River at Keokuk, Iowa

Location--Lat 40°23'35", long 91°22'25", in SE¼SW¼ sec.30, T.65 N., R.4 W., near right bank in tailwater at downstream end of new lock below dam and powerplant of Union Electric Co. at Keokuk, 2.8 miles upstream from Des Moines River, and 364.2 miles upstream from Ohio River.

Drainage area--119,000 sq mi, approximately.

Gage--Nonrecording prior to May 1913; recording thereafter. Prior to May 1913 at Galland (formerly Nashville), 8 miles upstream; zero of gage was set to low-water mark of 1864, or 497.94 ft above mean sea level, adjustment of 1912. Datum of gage is 477.41 ft above mean sea level, datum of 1929 (levels by Corps of Engineers); 477.83 ft above mean sea level, adjustment of 1912; 477.34 ft above mean gulf level; and 484.65 ft above Memphis datum.

Stage-discharge relation--Since 1913, discharge computed from records of operation of turbines in powerplant and spillway gates in dam.

Remarks--Keokuk Dam completed in 1913. Records January 1878 to September 1932 from report of Iowa State Planning Board; since October 1932, furnished by Union Electric Co. Only annual maximum daily discharges are shown.

Maximum daily discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1851	June 6, 1851	a13.5	360,000	1926	Sept. 28, 1926	-	146,000
				1927	Apr. 3, 1927	-	175,000
1878	June 11, 1878	-	150,000	1928	Apr. 12, 1928	-	150,000
1879	June 2, 3, 1879	-	110,000	1929	Mar. 23, 1929	-	247,000
1880	June 29, 1880	-	271,000	1930	June 18, 1930	-	163,000
1881	Apr. 23, 24, 1881	-	241,000	1931	July 4, 1931	-	52,500
1882	Oct. 31, 1882	-		1932	Apr. 24, 25, 1932	-	106,000
	Nov. 1, 1881	-	293,000	1933	Apr. 9, 1933	-	160,000
1883	May 18, 1883	-	201,000	1934	Apr. 22, 1934	-	83,500
1884	Apr. 1, 1884	-	236,000	1935	Apr. 11, 12, 1935	-	138,000
1885	Oct. 9, 10, 1884	-	170,000				
				1936	Apr. 9, 10, 1936	-	148,000
1886	May 6, 1886	-	212,000	1937	Mar. 10, 1937	-	190,000
1887	May 4, 1887	-	156,000	1938	Sept. 26, 1938	-	193,800
1888	May 18, 1888	b12.0	314,000	1939	Oct. 1, 1938	-	159,100
1889	Apr. 20, June 8, 18, 1889	-	84,200	1940	Apr. 19, 1940	-	81,700
1890	July 1, 1890	-	178,000				
				1941	Apr. 27, 1941	-	154,400
1891	May 3, 1891	-	141,000	1942	June 16, 1942	-	200,900
1892	June 29, 1892	-	306,000	1943	Apr. 18, 1943	-	174,000
1893	May 15-17, 1893	-	203,000	1944	May 27, 28, 1944	-	254,500
1894	June 4, 1894	-	158,000	1945	Mar. 26, 1945	-	203,300
1895	Mar. 11, 1895	-	59,200				
				1946	Jan. 11, 1946	-	223,300
1896	June 3, 1896	-	161,000	1947	June 21, 1947	-	245,700
1897	Apr. 28, 29, 1897	-	230,000	1948	Mar. 23, 1948	-	233,600
1898	Mar. 20, 1898	-	108,000	1949	Mar. 12, 1949	-	150,700
1899	June 29, 1899	-	159,000	1950	Apr. 25, 26, 1950	-	175,900
1900	Apr. 5, 6, 1900	-	124,000				
				1951	Apr. 29, 1951	-	265,100
1901	Mar. 24-26, 1901	-	150,000	1952	Apr. 27, 1952	-	253,800
1902	July 21, 22, 1902	-	181,000	1953	Apr. 1, 2, 1953	-	137,200
1903	June 6, 1903	-	270,000	1954	May 17, 1954	-	181,400
1904	Oct. 7, 1903	-	186,000	1955	Apr. 25, 1955	-	156,600
1905	June 10, 1905	-	212,000				
				1956	Apr. 22, 1956	-	131,500
1906	Apr. 26-28, 1906	-	192,000	1957	July 15, 1957	-	106,000
1907	Apr. 17-18, 1907	-	178,000	1958	June 13, 1958	-	99,000
1908	June 9, 1908	-	178,000	1959	Apr. 5, 1959	-	182,000
1909	May 5-7, 1909	-	181,000	1960	Apr. 4, 1960	-	289,500
1910	Mar. 20-23, 1910	-	124,000				
				1961	Apr. 5, 1961	-	208,400
1911	Feb. 21, 1911	-	156,000	1962	Apr. 7, 1962	-	224,100
1912	Apr. 6, 7, 1912	-	220,000	1963	Mar. 22, 1963	-	128,700
1913	Mar. 29, 1913	-	169,000	1964	May 21, 1964	-	96,400
1914	June 24, 1914	-	122,000	1965	May 1, 1965	-	327,000
1915	Feb. 28, 1915	-	142,000				
1916	May 9, 1916	-	213,000				
1917	June 17, 1917	-	163,000				
1918	June 12, 1918	-	192,000				
1919	May 8, 1919	-	205,000				
1920	Apr. 10-11, 1920	-	230,000				
1921	May 12-13, 1921	-	108,000				
1922	Apr. 24-25, 1922	-	240,000				
1923	Apr. 9-10, 1923	-	148,000				
1924	Apr. 24-25, 1924	-	160,000				
1925	June 23, 1925	-	112,000				

a Estimated; stage at present site and datum, 21.0 ft.

b Stage at present site and datum, 19.6 ft.

FOX RIVER BASIN

5-4950. Fox River at Wayland, Mo.
(Published as "near Wayland" prior to 1930)

Location.--Lat 40°23'45", long 91°35'50", in NW¼ sec.31, T.65 N., R.6 W., on left bank 90 ft downstream from bridge on U.S. Highway 136, three-quarters of a mile west of Wayland, and 5 miles downstream from Brush Creek.

Drainage area.--400 sq mi, approximately; 392 sq mi prior to Oct. 1, 1929. Slope.--4.5 ft per mi.

Gage.--Nonrecording Feb. 22, 1922, to June 11, 1936; recording thereafter. Prior to Oct. 1, 1929, at site 2.8 miles upstream at different datum. Datum of gage is 501.52 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; frequent shifts in relation occur.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	^a 21.4		1942	Oct. 11, 1941	15.80	4,510
1922	July 12, 1922	11.00	2,400		Nov. 2, 1941	15.7	4,420
1923	Mar. 16, 1923	9.75	1,980		Feb. 7, 1942	15.41	4,260
1924	Aug. 6, 1924	13.32	3,250	1943	May 17, 1943	16.45	5,290
1925	Apr. 26, 1925	14.9	3,760	1944	Mar. 16, 1944	16.00	4,800
1926	Sept. 10, 1926	14.60	4,160		Apr. 24, 1944	18.50	10,200
	Sept. 17, 1926	17.50	6,570	1945	Feb. 17, 1945	15.70	4,510
1927	Oct. 2, 1926	17.90	6,900		May 16, 1945	17.27	6,810
	Apr. 20, 1927	18.30	7,300		June 17, 1945	17.34	6,810
	May 25, 1927	16.12	5,240	1946	Jan. 7, 1946	18.10	8,950
	June 5, 1927	16.00	5,150		June 19, 1946	20.66	19,900
	June 13, 1927	15.55	4,830		July 19, 1946	18.40	9,880
1928	Oct. 1, 1927	19.10	8,100	1947	Apr. 6, 1947	18.20	9,260
	Oct. 12, 1927	15.10	4,430		June 7, 1947	19.12	12,200
	Feb. 8, 1928	14.56	4,070		June 14, 1947	17.30	6,810
	June 19, 1928	17.70	6,700		June 19, 1947	15.1	4,060
	July 5, 1928	15.00	4,350	1948	Feb. 29, 1948	15.8	5,290
	Sept. 12, 1928	15.95	5,150		Mar. 20, 1948	18.2	11,900
1929	Nov. 18, 1928	20.0	16,100		July 26, 1948	16.17	6,310
	Mar. 1, 1929	^b 15.00	-	1949	Feb. 20, 1949	^b 15.50	-
	Mar. 14, 1929	15.80	5,400		Apr. 1, 1949	12.90	3,350
	Apr. 21, 1929	18.80	12,600	1950	June 16, 1950	17.79	9,560
	Apr. 25, 1929	17.60	9,470		June 20, 1950	17.20	7,960
	June 3, 1929	17.00	8,010	1951	Feb. 20, 1951	^b 15.40	-
	July 15, 1929	15.40	4,700		Mar. 29, 1951	14.85	4,860
1930	June 16, 1930	14.16	3,460		May 12, 1951	15.27	5,250
1931	Apr. 21, 1931	17.20	7,090		June 27, 1951	15.21	5,160
	June 7, 1931	18.35	9,940		July 23, 1951	13.84	4,180
1932	Nov. 24, 1931	16.85	6,440	1952	Apr. 23, 1952	14.65	4,720
	Jan. 2, 1932	16.74	6,020		June 23, 1952	16.3	6,400
1933	Dec. 24, 1932	15.22	4,000	1953	Apr. 1, 1953	17.2	7,960
	Jan. 19, 1933	17.00	6,650	1954	Apr. 21, 1954	13.60	4,050
	May 12, 1933	17.13	6,870	1955	Jan. 6, 1955	15.98	6,000
	June 29, 1933	21.53	25,000	1956	Aug. 9, 1956	6.98	1,030
1934	Apr. 5, 1934	10.92	1,780	1957	June 11, 1957	16.35	6,130
1935	June 2, 1935	19.38	13,300	1958	June 14, 1958	15.42	4,650
1936	Feb. 26, 1936	17.65	8,060		July 31, 1958	15.51	4,750
1937	Feb. 22, 1937	^b 18.52	-	1959	May 31, 1959	15.72	4,950
	Mar. 5, 1937	13.72	3,540		Aug. 8, 1959	18.33	9,840
1938	Apr. 6, 1938	14.88	4,070		Sept. 28, 1959	15.18	4,470
1939	Mar. 13, 1939	18.22	9,260	1960	Oct. 7, 1959	18.24	9,570
	Apr. 16, 1939	17.10	6,390		Mar. 30, 1960	20.17	13,400
1940	Apr. 24, 1940	9.08	1,640		Apr. 17, 1960	14.64	4,080
1941	June 11, 1941	12.75	3,080		May 8, 1960	16.77	6,480
					May 27, 1960	14.65	4,220
					June 24, 1960	18.37	10,100
					July 1, 1960	17.16	7,200
					July 13, 1960	16.28	5,760

FOX RIVER BASIN

Peak stages and discharges of Fox River at Wayland, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Sept. 14, 1961	14.69	4,290				
1962	Nov. 18, 1961	15.05	4,500				
	Mar. 12, 1962	16.82	6,480				
1963	Mar. 5, 1963	16.27	5,760				
1964	Apr. 21, 1964	16.79	6,180				
1965	Jan. 2, 1965	14.72	4,070				
	Mar. 18, 1965	15.70	5,100				
	Apr. 6, 1965	15.97	5,300				
	Sept. 22, 1965	15.56	4,970				

a At present site prior to construction of highway fill in 1928.

b Backwater from ice.

FOX RIVER BASIN

5-4951. Big Branch tributary near Wayland, Mo.

Location.--Lat 40°18'52", long 91°34'34", in NW¼SE¼ sec.29, T.64 N., R.6 W., at culvert under U.S. Highway 61, 5.6 miles south of Wayland.

Drainage area.--0.70 sq mi. Slope.--80.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements.

Bankfull stage.--8 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	-	(a)	b 30				
1956	July 7, 1956	5.62	10				
1957	May 10, 1957	6.95	130				
1958	June 10, 1958	8.68	360				
1959	Sept. 29, 1959	6.49	80				
1960	June 30, 1960	7.81	240				
1961	Apr. 22, 1961	6.91	126				
1962	June 3, 1962	6.37	65				
1963	Mar. 4, 1963	6.31	60				
1964	Apr. 19, 1964	7.11	150				
1965	Jan. 1, 1965	7.05	142				

a Not determined; peak stage did not reach bottom of gage.

b Less than figure shown.

WYAONDA RIVER BASIN

5-4960. Wyaconda River above Canton, Mo.
(Published as "near Canton" prior to 1933)

Location.--Lat 40°08'30", long 91°33'55", in SE¼ sec.28, T.62 N., R.6 W., on left bank on downstream side of bridge on State Highway 16, 1 mile upstream from Sugar Creek, and 2 miles west of Canton.

Drainage area.--393 sq mi; 447 sq mi prior to Oct. 1, 1932. Slope.--4.5 ft per mi.

Gage.--Nonrecording prior to May 1, 1939; recording thereafter. Prior to Oct. 1, 1932, at site 2 miles downstream at different datum. Datum of gage is 515.41 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--18 ft.

Remarks.--Records for sites "near" and "above" considered equivalent for flood-frequency study. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Mar. 14, 1922	11.66	3,270	1946	Jan. 6, 1946	25.40	9,100
1923	Mar. 16, 1923	10.10	2,630		June 20, 1946	22.90	6,670
	Sept. 28, 1923	10.10	2,630		July 19, 1946	24.70	8,260
1924	June 27, 1924	12.26	3,520	1947	Apr. 6, 1947	26.40	11,200
1925	Apr. 26, 1925	10.18	2,670		June 7, 1947	27.14	12,400
1926	Sept. 27, 1926	15.76	5,300		June 14, 1947	21.10	5,440
1927	Oct. 3, 1926	17.95	6,700	1948	Mar. 20, 1948	24.10	8,020
	Apr. 21, 1927	15.65	5,180	1949	Mar. 27, 1949	15.53	2,950
	June 13, 1927	15.30	5,000	1950	June 20, 1950	26.07	10,800
1928	Oct. 3, 1927	18.78	7,300	1951	Feb. 20, 1951	21.79	5,900
1929	Nov. 18, 1928	26.7	16,000		July 22, 1951	20.89	5,320
	Apr. 1, 1929	15.94	5,340	1952	Mar. 19, 1952	16.5	3,280
	Apr. 21, 1929	20.54	8,750		Apr. 24, 1952	16.5	3,280
	Apr. 26, 1929	19.10	7,540	1953	Apr. 1, 1953	21.05	5,380
	June 3, 1929	16.73	5,820	1954	Apr. 22, 1954	14.36	2,600
	July 16, 1929	17.70	6,490	1955	Jan. 7, 1955	21.12	5,460
1930	Feb. 13, 1930	10.88	3,040	1956	Oct. 5, 1955	13.27	2,280
1931	June 7, 1931	19.00	7,460	1957	June 11, 1957	14.16	2,540
1932	Aug. 15, 1932	15.04	4,930	1958	Aug. 2, 1958	18.35	3,800
1933	Dec. 25, 1932	22.40	6,620	1959	Aug. 9, 1959	19.64	4,580
	May 13, 1933	23.80	7,870	1960	Oct. 7, 1959	23.24	7,140
	June 30, 1933	30.00	17,700		Mar. 31, 1960	23.64	7,560
1934	Apr. 5, 1934	10.56	1,470		June 25, 1960	20.98	5,380
1935	June 3, 1935	29.30	16,200		July 2, 1960	25.87	10,600
1936	Feb. 27, 1936	22.84	6,960	1961	Sept. 14, 1961	17.99	-
1937	Feb. 22, 1937	a21.61	3,120		Sept. 15, 1961	-	3,530
1938	Apr. 7, 1938	18.84	4,430	1962	Nov. 18, 1961	20.14	4,790
1939	Mar. 13, 1939	24.54	9,200	1963	Mar. 6, 1963	22.23	6,250
	Apr. 16, 1939	21.54	5,980	1964	Apr. 22, 1964	21.20	5,520
1940	Apr. 24, 1940	12.92	2,300	1965	Jan. 3, 1965	21.34	5,590
1941	June 10, 1941	14.25	2,720				
1942	Feb. 7, 1942	21.7	6,510				
1943	Aug. 9, 1943	20.4	5,600				
1944	Mar. 16, 1944	21.48	6,350				
	Apr. 12, 1944	19.56	5,100				
	Apr. 24, 1944	24.45	9,040				
1945	June 17, 1945	25.03	8,590				

a Backwater from ice.

FABIUS RIVER BASIN

5-4970. North Fabius River at Monticello, Mo.

Location.--Lat 40°06'30", long 91°42'55", in SW¼SE¼ sec.6, T.61 N., R.7 W., near center of span on downstream side of bridge on State Highway 16, 1 mile south of Monticello, and 19 miles upstream from Middle Fabius River.

Drainage area.--452 sq mi. Slope.--4.8 ft per mi.

Gage.--Nonrecording. Prior to Nov. 22, 1930, at site 400 ft downstream at datum 0.03 ft lower. Datum of gage is 540.73 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements; large shift in relation occurred in 1936.

Bankfull stage.--22 ft.

Historical data.--Flood of June 30, 1933, is maximum known since at least 1874.

Remarks.--Considerable improvement work completed on tributaries and main channel upstream from gaging station prior to establishment. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	July 13, 1922	18.60	5,140	1942	Feb. 7, 1942	23.14	9,120
1923	Mar. 16, 1923	15.70	3,590		July 15, 1942	22.30	8,450
1924	June 26, 1924	22.9	8,310	1943	May 16, 1943	20.15	6,850
1925	Apr. 25, 1925	18.18	4,910	1944	Mar. 16, 1944	21.05	7,410
1926	Sept. 16, 1926	23.2	8,580		Apr. 11, 1944	19.46	6,360
1927	Oct. 3, 1926	23.10	8,490		Apr. 24, 1944	25.1	11,100
	Apr. 20, 1927	23.50	8,760	1945	Feb. 15, 1945	19.80	6,570
	June 13, 1927	20.30	6,210		May 15, 1945	19.65	6,430
1928	Oct. 1, 1927	22.60	8,040		May 17, 1945	20.40	6,990
	June 19, 1928	25.00	10,300		June 17, 1945	26.7	13,000
1929	Nov. 18, 1928	30.0	16,000	1946	Jan. 6, 1946	25.77	11,900
	Apr. 1, 1929	21.00	6,700		Mar. 17, 1946	19.80	6,570
	Apr. 21, 1929	22.00	7,500		Mar. 24, 1946	19.42	6,290
	Apr. 25, 1929	24.00	9,300		June 19, 1946	21.70	7,970
	June 3, 1929	23.30	8,670	1947	July 18, 1946	27.00	13,300
	July 16, 1929	26.80	12,200		Apr. 6, 1947	28.00	14,700
1930	Oct. 29, 1929	20.50	6,350		May 29, 1947	20.36	6,990
1931	Apr. 21, 1931	22.40	7,860		June 7, 1947	28.65	15,600
	June 6, 1931	22.80	8,220		June 14, 1947	24.98	11,000
1932	Nov. 23, 1931	21.40	7,020		June 19, 1947	20.00	6,710
	Jan. 1, 1932	21.42	7,020	1948	June 22, 1947	19.50	6,360
	Aug. 15, 1932	21.50	7,100		Dec. 5, 1947	20.00	6,710
	Aug. 18, 1932	20.65	6,420		Feb. 28, 1948	21.70	7,970
1933	Dec. 24, 1932	25.70	11,000		Mar. 20, 1948	24.61	10,500
	Jan. 19, 1933	20.50	6,350	1949	Feb. 24, 1949	a23.2	6,500
	May 13, 1933	24.00	9,300		June 20, 1950	25.93	11,200
	June 30, 1933	30.8	17,400	1951	Feb. 19, 1951	21.3	7,170
1934	Sept. 29, 1934	8.80	1,270		July 22, 1951	24.0	9,410
1935	May 24, 1935	25.85	10,900	1952	Mar. 11, 1952	19.02	5,580
	May 28, 1935	20.58	6,340	1953	Mar. 31, 1953	21.8	7,550
	June 3, 1935	29.62	15,700	1954	Apr. 21, 1954	18.7	5,270
	June 19, 1935	22.17	7,480	1955	Jan. 6, 1955	22.6	8,190
1936	Feb. 25, 1936	25.68	10,800	1956	Aug. 9, 1956	13.90	2,500
	Sept. 28, 1936	21.3	7,800	1957	June 11, 1957	15.65	3,320
1937	Feb. 21, 1937	21.34	7,650	1958	Aug. 1, 1958	21.05	6,100
1938	May 28, 1938	17.44	4,830	1959	Aug. 7, 1959	23.58	8,700
1939	Mar. 13, 1939	26.0	12,100	1960	Oct. 7, 1959	23.84	8,800
	Apr. 16, 1939	25.25	10,200		Mar. 29, 1960	24.10	9,210
1940	Apr. 24, 1940	12.4	2,360		May 8, 1960	23.19	8,300
1941	June 10, 1941	18.0	5,380		June 24, 1960	21.16	6,380
					July 2, 1960	25.85	11,200

FABIUS RIVER BASIN .

Peak stages and discharges of North Fabius River at Monticello, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Sept. 14, 1961	19.14	4,670				
1962	Nov. 17, 1961	22.22	7,300				
1963	Mar. 5, 1963	22.80	7,900				
1964	Apr. 21, 1964	21.36	6,530				
1965	Jan. 2, 1965	21.98	7,200				
	Mar. 18, 1963	21.30	6,640				

a Backwater from ice.

FABIUS RIVER BASIN

5-4975. Middle Fabius River near Baring, Mo.

Location.--Lat 40°19'55", long 92°12'50", in NW¼NW¼ sec.26, T.64 N., R.12 W., on right bank at downstream side of bridge on State Highway 15, 1 mile downstream from confluence of North and South Forks, and 6 miles north of Baring.

Drainage area.--185 sq mi. Slope.--6.8 ft per mi.

Gage.--Nonrecording prior to Sept. 17, 1934; recording Sept. 17, 1934, to Aug. 21, 1961; crest-stage gage since Mar. 7, 1963. Datum of gage is 679.69 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6.200 cfs; shifts in relation occur.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 2,600 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1875	July 1875	a27		1951	Feb. 20, 1951	19.59	4,180
					Apr. 8, 1951	17.26	2,710
1931	Apr. 21, 1931	19.70	4,840		July 22, 1951	17.17	2,660
	May 29, 1931	18.00	3,830				
	June 6, 1931	18.55	4,160	1952	Apr. 23, 1952	17.26	2,710
	July 3, 1931	15.85	2,840		June 3, 1952	17.30	2,710
1932	Nov. 24, 1931	18.90	4,340	1953	Mar. 31, 1953	21.43	6,160
	Aug. 15, 1932	18.70	4,220				
				1954	Apr. 21, 1954	17.15	2,660
1933	Dec. 24, 1932	16.00	2,790				
	Jan. 19, 1933	18.10	3,880	1955	Jan. 6, 1955	21.89	6,490
	May 12, 1933	19.90	4,940		Feb. 19, 1955	17.32	2,830
	June 29, 1933	24.23	8,740		May 13, 1955	17.10	2,730
1934	Apr. 4, 1934	8.60	800	1956	Oct. 6, 1955	13.75	1,470
1935	May 4, 1935	15.94	2,740	1957	May 14, 1957	14.58	1,710
	May 24, 1935	19.78	4,880				
				1958	Oct. 24, 1957	17.66	3,030
1936	Feb. 27, 1936	15.76	2,700		Dec. 20, 1957	16.88	2,640
	Sept. 27, 1936	20.10	5,000		May 5, 1958	17.12	2,730
					July 20, 1958	17.65	2,980
1937	Oct. 11, 1936	16.38	2,980		Aug. 1, 1958	18.37	3,440
	Feb. 21, 1937	20.07	5,060				
	Mar. 4, 1937	15.75	2,700	1959	Aug. 6, 1959	22.18	5,800
1938	Apr. 7, 1938	15.13	2,230	1960	Oct. 6, 1959	21.64	5,250
					Mar. 28, 1960	21.98	5,610
1939	Mar. 12, 1939	22.31	7,060		May 7, 1960	22.30	5,900
	Apr. 15, 1939	21.62	6,460		July 1, 1960	23.18	7,100
1940	Mar. 3, 1940	15.40	2,130	1961	Apr. 22, 1961	18.03	b2,870
1941	June 10, 1941	19.07	4,500	1963	Mar. 5, 1963	14.6	b1,650
1942	Nov. 1, 1941	17.5	3,350	1964	Apr. 20, 1964	21.56	b5,210
	Dec. 24, 1941	16.4	2,660				
	Feb. 7, 1942	19.24	4,570	1965	Sept. 22, 1965	23.13	b6,950
1943	Dec. 28, 1942	17.52	3,350				
	Apr. 27, 1943	16.9	2,960				
	May 17, 1943	17.0	3,020				
1944	Mar. 15, 1944	20.4	5,490				
	Apr. 23, 1944	24.06	8,640				
1945	May 16, 1945	16.3	2,600				
	June 16, 1945	25.1	9,540				
	June 21, 1945	18.2	3,840				
1946	Jan. 5, 1946	22.2	6,970				
	Mar. 23, 1946	18.3	3,900				
	July 17, 1946	22.80	7,480				
1947	Apr. 5, 1947	22.0	6,800				
	June 5, 1947	24.2	8,730				
	June 13, 1947	23.40	8,010				
1948	Dec. 5, 1947	17.91	3,480				
	Feb. 28, 1948	19.70	4,940				
	Mar. 20, 1948	21.73	6,540				
1949	June 26, 1949	16.6	2,720				
1950	June 19, 1950	24.55	9,000				

a. About.

b. Annual peak only.

FABIUS RIVER BASIN

5-4977. Bridge Creek Branch near Baring, Mo.

Location--Lat 40°15'30", long 92°13'00", in NE¼NE¼ sec.22, T.63 N., R.12 W., at culvert under State Highway 15, 1 mile northwest of Baring.

Drainage area--2.54 sq mi. Slope--43.2 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by current-meter measurements below 140 cfs and extended on basis of indirect measurements.

Bankfull stage--13 ft.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet) Discharge (cfs)
1955	Jan.	5, 1955	13.26	455			
1956	July	1, 1956	11.17	207			
1957	July	28, 1957	12.55	360			
1958	Oct.	23, 1957	13.91	552			
1959	Nov.	17, 1958	9.49	94			
1960	June	23, 1960	15.20	800			
1961	Apr.	22, 1961	10.81	170			
1962	Nov.	16, 1961	14.45	650			
1963	Mar.	4, 1963	13.04	400			
1964	July	12, 1964	12.29	315			
1965	Jan.	2, 1965	13.39	465			

FABIUS RIVER BASIN

5-4980. Middle Fabius River near Monticello, Mo.

Location--Lat 40°05'40", long 91°44'10", in SE¼ sec.12, T.61 N., R.8 W., near center of span on upstream side of bridge on State Highway 16, 2½ miles southwest of Monticello, 8 miles downstream from Radish Branch, and 17 miles upstream from mouth.

Drainage area--393 sq mi. Slope--4.1 ft per mi.

Gage--Nonrecording. Datum of gage is 540.46 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--13 ft.

Remarks--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 8, 1946	19.2	6,520	1958	Oct. 24, 1957	18.05	5,600
	July 20, 1946	16.88	4,880		Dec. 20, 1957	14.35	3,580
1947	Apr. 5, 1947	20.9	8,100	1959	Aug. 9, 1959	15.12	3,930
	May 29, 1947	15.0	3,880				
	June 7, 1947	26.28	16,200	1960	Oct. 9, 1959	19.00	6,360
	June 16, 1947	18.4	5,880		Mar. 31, 1960	19.51	6,770
	June 19, 1947	16.0	4,380		May 9, 1960	17.90	5,530
1948	Mar. 1, 1948	14.50	3,630		June 23, 1960	14.36	3,580
	Mar. 22, 1948	18.04	5,600	1961	July 3, 1960	20.08	7,310
1949	Feb. 21, 1949	17.2	5,060		Mar. 22, 1961	14.56	3,500
	July 21, 1949	18.45	5,880		Apr. 21, 1961	15.02	3,700
1950	June 21, 1950	20.9	8,300		Sept. 13, 1961	16.02	4,230
					Sept. 23, 1961	16.17	4,350
1951	Feb. 22, 1951	16.5	4,960	1962	Nov. 3, 1961	15.80	4,280
	July 23, 1951	20.1	6,610		Nov. 16, 1961	14.70	3,730
1952	June 3, 1952	15.7	4,230		Mar. 21, 1962	14.53	3,630
1953	Apr. 2, 1953	18.4	5,880	1963	Mar. 6, 1963	17.38	5,190
1954	Mar. 25, 1954	12.33	2,580	1964	Apr. 23, 1964	18.48	6,000
1955	Jan. 8, 1955	18.06	5,670		Jan. 2, 1965	19.98	7,300
					Jan. 23, 1965	15.45	4,000
1956	Oct. 5, 1955	10.50	1,860		Mar. 17, 1965	16.02	4,300
					Apr. 6, 1965	15.80	4,200
1957	May 10, 1957	13.70	3,230		Sept. 24, 1965	15.50	4,050

FABIUS RIVER BASIN

5-4985. North Fabius River at Taylor, Mo.

Location--Lat 39°56'05", long 91°31'35", in NE¼SE¼ sec.2, T.59 N., R.6 W., at bridge on U. S. Highway 61 at Taylor, 6.5 miles upstream from mouth.

Drainage area--930 sq mi, approximately. Slope--4.0 ft per mi.

Gage--Nonrecording Apr. 12, 1930, to Sept. 17, 1934; recording thereafter. Datum of gage is 469.65 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements; shifts in relation occur. Relation affected at times by back-water from Mississippi River.

Bankfull stage--15 ft.

Remarks--New channel dug from near gage to mouth prior to establishment of gaging station. Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Nov. 19, 1928	23.5	26,000	1936	Feb. 26, 1936	14.50	12,100
1931	June 8, 1931	14.29	11,400	1937	Feb. 23, 1937	11.31	8,480
				1938	Apr. 10, 1938	10.64	7,460
1932	Aug. 19, 1932	14.36	11,600	1939	Mar. 14, 1939	15.67	16,200
1933	June 30, 1933	22.85	30,300	1940	Mar. 4, 1940	7.18	3,790
1934	Sept. 29, 1934	6.18	2,380	1941	June 11, 1941	8.35	5,050
1935	June 4, 1935	19.44	24,400		Feb. 8, 1942	15.10	13,100

FABIUS RIVER BASIN

5-5000. South Fabius River near Taylor, Mo.

Location.--Lat 39°53'50", long 91°34'50", in SW¼NW¼ sec.21, T.59 N., R.6 W., on right bank at downstream side of highway bridge, 4½ miles southwest of Taylor, 5 miles downstream from Grassy Creek, and 5.3 miles upstream from confluence with North Fabius River.

Drainage area.--620 sq mi; 630 sq mi at site used prior to May 14, 1936. Slope.--3.4 ft per mi.

Gage.--Nonrecording Dec. 16, 1934, to Dec. 2, 1940; recording thereafter. Prior to May 14, 1936, at site 4 miles downstream at datum 21.94 ft lower. Datum of gage is 482.91 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and extended above.

Bankfull stage.--11 ft.

Remarks.--Channel improvements made in Fabius River, 5.3 miles below station, and for distance of 7.5 miles in South Fabius River, about 34 miles upstream from station. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	November 1928	18.49	17,800	1946	Jan. 7, 1946	13.60	10,400
1933	June 1933	18.42	17,700		Mar. 26, 1946	8.80	4,210
					May 6, 1946	8.80	4,210
1935	May 2, 1935	17.7	6,670	1947	Oct. 17, 1946	10.40	6,030
	May 9, 1935	17.8	6,760		Nov. 2, 1946	9.85	5,310
	May 14, 1935	17.4	6,400		Dec. 13, 1946	9.14	4,520
	May 30, 1935	18.1	7,030		Apr. 6, 1947	17.30	15,700
	June 4, 1935	22.9	11,830		May 30, 1947	10.48	6,150
	June 19, 1935	23.38	12,400		June 8, 1947	19.5	19,700
					June 20, 1947	11.2	6,990
1936	Feb. 26, 1936	21.85	10,600				
	Sept. 29, 1936	9.11	5,110	1948	Dec. 7, 1947	8.68	4,070
1937	Feb. 21, 1937	9.80	5,959		Feb. 27, 1948	9.25	4,620
	July 13, 1937	8.80	4,780		Mar. 21, 1948	11.88	7,830
1938	Jan. 24, 1938	8.10	4,010	1949	July 20, 1949	12.19	8,210
	Mar. 30, 1938	10.91	7,190		July 22, 1949	9.0	4,400
	Apr. 10, 1938	10.80	7,060	1950	Apr. 4, 1950	8.34	3,650
	May 28, 1938	8.14	4,014				
	Aug. 28, 1938	9.00	5,000	1951	Feb. 20, 1951	9.57	5,070
1939	Nov. 7, 1938	8.40	4,340		Mar. 29, 1951	10.40	6,030
	Mar. 13, 1939	12.82	9,510		July 24, 1951	10.17	5,790
	Apr. 17, 1939	11.50	7,730	1952	Mar. 10, 1952	8.97	4,330
	May 27, 1939	10.40	6,300		Mar. 19, 1952	9.66	5,100
	June 22, 1939	9.60	5,360		Apr. 25, 1952	10.05	5,430
	Aug. 11, 1939	8.90	4,590		June 9, 1952	9.07	4,440
	Aug. 18, 1939	9.00	4,700	1953	Apr. 2, 1953	10.18	5,670
1940	Mar. 3, 1940	7.8	3,470		July 21, 1953	9.61	4,990
1941	Apr. 20, 1941	6.93	2,580	1954	Aug. 17, 1954	8.10	3,490
1942	Nov. 1, 1941	9.33	4,760	1955	Jan. 6, 1955	9.34	4,730
	Dec. 26, 1941	8.70	4,070		Feb. 20, 1955	11.58	7,470
	Feb. 4, 1942	10.10	5,670		Apr. 23, 1955	10.90	6,630
	Feb. 7, 1942	13.62	10,400		May 28, 1955	15.25	12,300
	Mar. 16, 1942	9.50	4,950				
	Apr. 10, 1942	8.80	4,180	1956	Oct. 6, 1955	9.65	5,070
	Apr. 29, 1942	9.12	4,510				
	June 26, 1942	10.10	5,670	1957	May 17, 1957	11.40	6,290
	July 15, 1942	10.20	5,790				
1943	Dec. 27, 1942	10.80	6,540	1958	Oct. 26, 1957	14.44	9,820
	May 21, 1943	14.38	11,700		July 3, 1958	11.90	6,840
	June 9, 1943	9.91	5,430		July 15, 1958	13.08	8,190
	June 19, 1943	9.24	4,620	1959	Feb. 10, 1959	9.21	3,990
	July 15, 1943	9.00	4,400				
1944	May 17, 1944	13.44	10,200	1960	Mar. 30, 1960	12.35	7,850
	Apr. 11, 1944	14.30	11,600		Apr. 16, 1960	9.28	4,730
	Apr. 24, 1944	13.15	9,700		June 24, 1960	11.25	6,630
	Aug. 21, 1944	10.35	5,970		July 1, 1960	8.86	4,370
					July 12, 1960	9.80	5,230
1945	Mar. 20, 1945	10.35	6,030	1961	Mar. 13, 1961	8.68	4,150
	Mar. 25, 1945	10.09	5,670		Apr. 25, 1961	10.16	5,540
	Apr. 13, 1945	11.78	7,870		May 8, 1961	10.76	6,140
	Apr. 16, 1945	9.20	4,630		Sept. 14, 1961	12.94	8,390
	May 17, 1945	10.45	6,030		Sept. 26, 1961	11.16	6,540
	June 9, 1945	12.20	8,430				
	June 18, 1945	13.05	9,550	1962	Nov. 5, 1961	10.21	5,540
	Sept. 29, 1945	9.30	4,740		Nov. 18, 1961	9.92	5,240
					Mar. 12, 1962	9.05	4,420
					Mar. 21, 1962	11.61	6,950
					July 3, 1962	10.93	6,240

FABIUS RIVER BASIN

Peak stages and discharges of South Fabius River near Taylor, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1963	Mar. 4, 1963	10.05	5,340				
	May 16, 1963	8.75	4,330				
1964	Apr. 5, 1964	9.47	4,870				
	Apr. 22, 1964	9.14	4,510				
1965	Jan. 4, 1965	14.81	10,800				
	Jan. 24, 1965	12.15	7,610				
	Mar. 17, 1965	11.37	6,740				
	Apr. 6, 1965	12.49	7,940				

a From floodmark, present site and datum.

NORTH RIVER BASIN

5-5005. North River at Bethel, Mo.

Location--Lat 39°52'29", long 92°01'26", in NE¼NW¼ sec.33, T.59 N., R.10 W., at left abutment on downstream side of bridge on State Highway 15 at Bethel, 2½ miles upstream from Messner Branch.

Drainage area--58 sq mi, approximately. Slope--5.0 ft per mi.

Gage--Nonrecording prior to Apr. 17, 1956; recording thereafter. Datum of gage is 683.37 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 5,600 cfs.

Bankfull stage--14 ft.

Historical data--Floods of Apr. 5, 1947, and Oct. 24, 1957, reached maximum stages known since at least 1875, from information by local resident.

Remarks--Base for partial-duration series, 600 cfs.

Peak stages and discharges

Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1937	Jan.	31, 1937	a10.6	-	1949	Jan.	16, 1949	a9.45	-
	Feb.	9, 1937	a8.8	-		Feb.	14, 1949	a9.45	-
	Feb.	13, 1937	a11.57	-		Feb.	19, 1949	9.97	922
	May	3, 1937	8.3	518		Feb.	24, 1949	8.60	613
1938	Apr.	10, 1938	9.36	777	Mar.	27, 1949	9.80	872	
					June	3, 1949	8.67	632	
					June	27, 1949	11.25	1,250	
1939	Mar.	12, 1939	17.1	4,280	July	20, 1949	10.40	1,030	
	Apr.	16, 1939	10.15	972					
	June	21, 1939	10.20	972	1950	Oct.	21, 1949	8.73	632
	Aug.	11, 1939	9.90	894	Jan.	14, 1950	9.22	734	
1940	Mar.	3, 1940	8.6	596	Apr.	4, 1950	9.50	801	
					Apr.	25, 1950	8.80	652	
1941	Jan.	17, 1941	7.5	420	June	15, 1950	8.80	652	
1942	Oct.	22, 1941	8.8	652	1951	Feb.	20, 1951	a12.4	900
	Nov.	1, 1941	10.7	1,110	June	27, 1951	11.49	1,020	
	Dec.	24, 1941	8.8	652					
	Feb.	6, 1942	15.10	2,960	1952	Mar.	10, 1952	11.8	1,110
	Mar.	17, 1942	10.2	973	Mar.	19, 1952	10.9	850	
	Apr.	10, 1942	10.5	1,050	Apr.	23, 1952	16.0	3,280	
	July	14, 1942	9.6	824	1953	Apr.	1, 1953	11.5	1,020
1943	Dec.	27, 1942	9.3	756	1954	Apr.	6, 1954	13.6	1,800
	Feb.	4, 1943	8.6	613	Aug.	8, 1954	9.8	618	
	May	16, 1943	8.8	652	Aug.	17, 1954	12.2	1,240	
	May	20, 1943	12.1	1,530					
	June	9, 1943	9.9	897	1955	Jan.	6, 1955	12.12	1,200
	June	11, 1943	9.3	756	Feb.	19, 1955	12.0	1,170	
	June	17, 1943	12.2	1,560	May	28, 1955	13.68	1,850	
					June	20, 1955	10.93	860	
1944	Mar.	15, 1944	18.04	4,900					
	Apr.	11, 1944	16.3	3,750	1956	Oct.	6, 1955	10.48	776
	Apr.	23, 1944	13.0	1,840	Aug.	3, 1956	10.64	795	
	May	24, 1944	9.4	778					
1945	Mar.	26, 1945	10.9	1,190	1957	May	18, 1957	9.55	670
	Apr.	17, 1945	9.5	801	July	29, 1957	10.77	930	
	Apr.	26, 1945	9.9	897					
	May	17, 1945	12.2	1,560	1958	Oct.	24, 1957	20.90	5,870
	June	10, 1945	12.1	1,530	Nov.	19, 1957	9.30	614	
	June	16, 1945	17.3	4,410	Dec.	21, 1957	9.51	650	
	July	1, 1945	9.3	756	Dec.	26, 1957	9.88	730	
	Sept.	29, 1945	13.0	1,840	Feb.	24, 1958	9.62	670	
1946	Jan.	5, 1946	16.07	3,620	July	2, 1958	9.34	614	
	Mar.	24, 1946	11.4	1,310	July	16, 1958	13.70	1,720	
	May	4, 1946	9.1	713	Aug.	1, 1958	12.69	1,410	
	May	7, 1946	9.3	756	1959	Feb.	10, 1959	12.28	1,300
				May	31, 1959	9.19	608		
1947	Dec.	13, 1946	9.9	897	1960	Oct.	6, 1959	9.56	665
	Apr.	5, 1947	20.9	6,930	Mar.	28, 1960	15.01	2,170	
	May	29, 1947	11.1	1,220	Apr.	16, 1960	9.87	800	
	June	2, 1947	10.0	922	May	7, 1960	10.56	940	
	June	6, 1947	18.8	5,460	July	1, 1960	9.68	762	
	June	19, 1947	16.4	3,810	July	11, 1960	14.69	2,050	
	June	21, 1947	14.6	2,530					
	Sept.	21, 1947	9.2	713	1961	Mar.	9, 1961	9.17	667
					Mar.	14, 1961	10.05	820	
1948	Dec.	5, 1947	10.66	1,110	Apr.	23, 1961	11.54	1,120	
	Feb.	28, 1948	10.60	1,080	May	6, 1961	9.25	667	
	Mar.	19, 1948	16.75	4,070	Sept.	14, 1961	15.52	2,370	
	Apr.	8, 1948	8.78	652	Sept.	24, 1961	14.83	2,090	

NORTH RIVER BASIN

Peak stages and discharges of North River at Bethel, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Oct. 31, 1961	10.46	920	1964	Apr. 6, 1964	9.46	724
	Nov. 3, 1961	14.70	2,050		Apr. 21, 1964	13.42	1,620
	Nov. 16, 1961	13.79	1,740	1965	Jan. 2, 1965	18.15	3,890
	Jan. 6, 1962	9.50	667		Jan. 23, 1965	13.95	1,800
	Feb. 5, 1962	11.55	1,100		Mar. 17, 1965	13.27	1,590
	Mar. 12, 1962	11.20	1,060		Apr. 6, 1965	15.65	2,410
1963	Mar. 21, 1962	13.02	1,500		Sept. 16, 1965	9.78	781
	Mar. 5, 1963	12.98	1,500		Sept. 20, 1965	8.94	611
	May 16, 1963	9.54	724				

a Backwater from ice.

NORTH RIVER BASIN

5-5010. North River at Palmyra, Mo.

Location.--Lat 39°49'05", long 91°31'15", in SE¼SW¼ sec.13, T.58 N., R.6 W., on right bank 100 ft upstream from city waterworks dam, 1,000 ft upstream from bridge on U. S. Highways 24 and 61, half a mile north of Palmyra, and 7 miles upstream from mouth.

Drainage area.--373 sq mi. Slope.--5.0 ft per mi.

Gage.--Nonrecording Dec. 14, 1934, to June 22, 1951; recording thereafter. Prior to Oct. 1, 1945, at site 1,000 ft downstream at same datum. Datum of gage is 464.81 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs; a large shift in relation occurred in 1951.

Bankfull stage.--19 ft.

Historical data.--Maximum stage known, about 28 ft, from floodmarks, date unknown.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges								
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Discharge (cfs)
1935	May	9, 1935	18.15	a8,790	1947	Oct. 18, 1946	16.80	6,430
						Nov. 3, 1946	16.20	5,980
1936	Feb.	26, 1936	21.00	15,000		Nov. 9, 1946	15.48	5,300
						Dec. 13, 1946	14.70	4,480
1937	Feb.	21, 1937	15.36	5,350		Apr. 5, 1947	21.65	15,600
	July	13, 1937	18.45	9,220		May 29, 1947	14.37	4,170
	July	19, 1937	16.84	6,550		June 1, 1947	22.4	19,000
						June 7, 1947	b21.41	11,000
1938	Mar.	29, 1938	15.63	5,510		June 20, 1947	b20.02	8,000
	Mar.	31, 1938	18.00	8,380				
	May	28, 1939	17.54	7,500	1948	Dec. 4, 1947	16.39	6,130
						Dec. 7, 1947	16.04	5,800
1939	Mar.	12, 1939	19.70	12,200		Feb. 28, 1948	15.10	4,900
	Apr.	17, 1939	17.39	7,600		Mar. 6, 1948	15.04	4,800
	May	27, 1939	18.80	10,100		Mar. 19, 1948	18.84	8,490
	June	21, 1939	17.20	7,310		Mar. 22, 1948	15.09	4,900
	July	25, 1939	20.50	14,600				
	Aug.	12, 1939	16.00	5,920	1949	Feb. 13, 1949	21.0	12,300
	Aug.	17, 1939	15.40	5,350		June 2, 1949	15.4	5,200
1940	Mar.	3, 1940	12.4	3,330		June 24, 1949	20.55	11,600
						June 26, 1949	17.0	6,600
1941	Apr.	19, 1941	12.0	3,110		July 20, 1949	22.3	16,000
						July 22, 1949	22.2	15,600
1942	Oct.	5, 1941	15.52	5,480	1950	Oct. 21, 1949	14.68	4,480
	Oct.	21, 1941	15.52	5,480		Dec. 21, 1949	15.56	5,400
	Nov.	1, 1941	16.32	6,310		Jan. 3, 1950	15.56	5,400
	Feb.	7, 1942	18.95	10,800		Apr. 4, 1950	15.13	5,000
	Mar.	16, 1942	14.90	5,370				
	Apr.	10, 1942	16.90	7,240	1951	Feb. 19, 1951	14.45	4,170
	June	19, 1942	b14.90	-		Mar. 29, 1951	22.72	17,900
	June	26, 1942	20.48	15,200		June 27, 1951	18.69	8,460
	July	10, 1942	15.00	5,450				
	July	15, 1942	19.00	10,800	1952	Nov. 12, 1951	17.80	7,350
						Mar. 10, 1952	15.19	5,000
1943	Dec.	27, 1942	19.27	11,500		Mar. 18, 1952	17.94	7,460
	May	16, 1943	15.78	6,120		May 9, 1952	14.48	4,280
	May	18, 1943	18.00	8,800				
	May	21, 1943	16.00	6,300	1953	Mar. 31, 1953	15.39	5,200
	June	8, 1943	15.19	5,610		June 14, 1953	15.26	5,100
	June	10, 1943	18.30	9,350				
1944	Mar.	15, 1944	19.80	12,800	1954	June 1, 1954	13.42	2,900
	Apr.	11, 1944	22.96	27,400				
	Apr.	23, 1944	19.50	12,000	1955	Jan. 5, 1955	16.63	6,240
	May	28, 1944	b13.40	-		Feb. 19, 1955	20.33	11,000
						Apr. 24, 1955	18.87	8,750
						May 28, 1955	24.42	23,000
1945	Mar.	21, 1945	18.77	10,400				
	Mar.	25, 1945	b18.77	-	1956	Apr. 29, 1956	15.49	5,160
	Apr.	13, 1945	19.18	11,300		June 21, 1956	17.05	6,600
	Apr.	16, 1945	15.98	6,300				
	Apr.	26, 1945	15.60	5,940	1957	Apr. 22, 1957	15.35	5,060
	May	17, 1945	18.42	9,540		Apr. 27, 1957	15.95	5,660
	June	9, 1945	19.00	10,800		May 17, 1957	19.00	8,900
	June	16, 1945	20.30	14,400		June 8, 1957	16.81	6,420
	July	1, 1945	15.70	6,030		June 12, 1957	14.71	4,320
	Sept.	28, 1945	17.00	7,350		July 29, 1957	16.83	6,420
1946	Jan.	6, 1946	18.40	8,290	1958	Oct. 25, 1957	16.96	4,820
	Jan.	9, 1946	18.6	8,560		July 16, 1958	21.60	11,100
	May	11, 1946	14.72	4,485		July 20, 1958	18.96	6,840
						July 31, 1958	19.70	7,790

NORTH RIVER BASIN

Peak stages and discharges of North River at Palmyra, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Feb. 10, 1959	21.38	10,600	1963	Mar. 5, 1963	18.88	6,710
	June 1, 1959	17.09	4,900		May 16, 1963	18.07	5,790
1960	Mar. 28, 1960	17.86	5,590	1964	Apr. 5, 1964	18.76	6,580
	Apr. 17, 1960	16.50	4,470		Apr. 19, 1964	17.22	4,980
	July 1, 1960	16.00	4,150				
	July 11, 1960	17.23	4,980	1965	Jan. 2, 1965	18.27	5,990
	July 13, 1960	17.14	4,900		Jan. 24, 1965	19.07	6,940
1961	May 8, 1961	20.67	9,320		Mar. 17, 1965	19.06	6,920
	July 1, 1961	16.92	4,750		Apr. 6, 1965	20.89	9,620
	July 23, 1961	16.68	4,610		Sept. 16, 1965	16.70	4,610
	Sept. 14, 1961	23.58	15,400				
1962	Nov. 3, 1961	17.53	5,230				
	Nov. 16, 1961	17.49	5,230				
	Mar. 21, 1962	21.07	9,980				
	July 2, 1962	17.24	4,980				

a Annual peak only.

b Backwater from Mississippi River.

SOUTH RIVER BASIN

5-5012. Nichols Branch near Palmyra, Mo.

Location.--Lat 39°44'30", long 91°32'00", in SE½SE¼ sec.11, T.57 N., R.6 W., at culvert on county road 4 miles south of Palmyra.Drainage area.--2.58 sq mi. Slope.--52.5 ft per mi.Gage.--Crest-stage gage.Stage-discharge relation.--Defined by indirect measurements.Bankfull stage.--22 ft.Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 21, 1949	-	3,700	1961	May 8, 1961	19.60	669
1955	-	(a)	-	1962	Mar. 20, 1962	18.95	490
1956	July 7, 1956	15.76	-	1963	Mar. 4, 1963	18.20	310
1957	June 8, 1957	16.29	-	1964	June 21, 1964	17.73	220
1958	-	16.12	-	1965	June 29, 1965	20.95	1,000
1959	-	(a)	-				
1960	July 12, 1960	17.64	210				

a Not determined; peak stage did not reach bottom of gage.

BEAR CREEK BASIN

5-5020. Bear Creek at Hannibal, Mo.

Location--Lat 39°40'43", long 91°24'33", in SE¼NW¼ sec.1, T.56 N., R.5 W., on right bank 400 ft downstream from upstream bridge on dual U. S. Highway 61 at Hannibal, 4-3/4 miles upstream from mouth.

Drainage area--31.0 sq mi. Slope--15.4 ft per mi.

Gage--Nonrecording prior to Mar. 25, 1948; recording thereafter. Prior to Oct. 1, 1953, at datum 2.00 ft higher. Datum of gage is 508.91 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current meter measurements below 4,000 cfs and extended above; shifts in relation occur.

Bankfull stage--10 ft.

Remarks--High flow regulated by Bear Creek Reservoir since Aug. 7, 1961. Base for partial-duration series, 1,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	June 13, 1937	10.8	6,050	1955	Feb. 19, 1955	8.66	1,700
1939	Mar. 11, 1939	7.53	2,740		May 28, 1955	10.47	2,780
	Apr. 17, 1939	6.58	1,970		June 29, 1955	10.43	2,710
	June 19, 1939	7.50	2,740		July 5, 1955	9.66	2,260
	June 21, 1939	9.5	4,670		Aug. 29, 1955	10.74	2,920
	Aug. 11, 1939	6.60	1,970	1956	Oct. 5, 1955	8.99	1,850
1940	Apr. 17, 1940	6.50	1,890		June 19, 1956	8.73	1,700
	Aug. 5, 1940	9.86	5,070	1957	June 8, 1957	9.12	1,900
1941	Sept. 2, 1941	7.4	2,610		June 14, 1957	13.62	5,880
					July 28, 1957	12.39	4,460
1942	July 14, 1942	7.1	2,280		July 29, 1957	9.72	2,260
					Aug. 3, 1957	14.05	6,500
1948	Apr. 7, 1948	7.39	2,090	1958	July 15, 1958	10.67	2,920
1949	June 2, 1949	7.60	2,200		July 19, 1958	11.19	3,300
	June 23, 1949	10.80	4,900		July 31, 1958	8.90	1,650
	July 21, 1949	10.95	5,120		Aug. 21, 1958	11.68	3,750
	Sept. 12, 1949	8.30	2,640	1959	Nov. 17, 1958	9.92	1,800
1950	Oct. 21, 1949	8.20	2,580		Feb. 10, 1959	10.05	1,850
	Dec. 21, 1949	7.60	2,200	1960	July 12, 1960	8.74	1,400
1951	July 28, 1951	7.84	2,380	1961	May 8, 1961	12.46	3,970
1952	Mar. 18, 1952	5.15	988	1962	Mar. 21, 1962	6.25	1,240
1953	Mar. 21, 1953	2.31	208	1963	May 16, 1963	6.41	1,320
1954	Apr. 30, 1954	5.59	415	1964	Apr. 5, 1964	6.09	1,170
				1965	Sept. 16, 1965	7.20	1,480

SALT RIVER BASIN

5-5025. Salt River near Shelbyna, Mo.

Location.--Lat 39°44'25", long 92°02'26", in SW¼NE¼ sec.17, T.57 N., R.10 W., on right bank on downstream side of right pier of bridge on State Highway 15, 3 miles north of Shelbyna, and 15 miles upstream from Black Creek.

Drainage area.--481 sq mi. Slope.--3.9 ft per mi.

Gage.--Nonrecording prior to Mar. 1, 1934; recording thereafter. Datum of gage is 664.58 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Some channel improvements made in drainage basin upstream from gage during period 1906-20. Base for partial-duration series, 3,000 cfs.

				Peak stages and discharges					
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1909	July	1909	23.42	a17,700	1946	Jan. 7, 1946	20.66	11,700	
1928	June	1928	23.54	a18,000		Mar. 25, 1946	14.10	4,560	
					1947	Apr. 6, 1947	20.90	13,000	
1931	Apr. 23, 1931		12.58	3,890		June 1, 1947	14.20	4,630	
	June 8, 1931		17.88	8,270		June 3, 1947	15.20	5,310	
						June 7, 1947	27.4	23,000	
1932	Nov. 19, 1931		12.30	3,720		June 15, 1947	13.9	4,440	
	Nov. 26, 1931		13.00	4,110		June 20, 1947	21.8	13,400	
	Jan. 2, 1932		11.85	3,460					
	Aug. 3, 1932		13.04	4,110	1948	Dec. 6, 1947	12.97	3,940	
	Aug. 18, 1932		16.32	5,920		Feb. 29, 1948	13.60	4,270	
						Mar. 20, 1948	17.80	7,920	
1933	Dec. 26, 1932		17.20	7,390					
	May 14, 1933		15.34	5,490	1949	Feb. 15, 1949	11.27	3,100	
	July 1, 1933		22.62	16,000		Feb. 21, 1949	14.20	4,630	
						July 12, 1949	11.50	3,080	
1934	Sept. 30, 1934		10.48	2,800		July 22, 1949	13.56	4,270	
1935	Nov. 5, 1934		11.74	3,360	1950	June 17, 1950	12.60	3,730	
	May 3, 1935		14.10	4,660		June 21, 1950	13.35	4,160	
	May 10, 1935		13.60	4,360					
	May 12, 1935		17.78	8,140	1951	Feb. 21, 1951	15.81	5,810	
	May 22, 1935		11.37	3,220		June 28, 1951	16.23	6,180	
	May 29, 1935		16.78	6,930		July 25, 1951	15.32	5,390	
	June 3, 1935		20.63	12,300					
	June 19, 1935		14.90	5,180	1952	Mar. 11, 1952	15.14	5,230	
						Mar. 21, 1952	12.73	3,780	
1936	Feb. 27, 1936		17.40	7,040		Apr. 24, 1952	14.35	4,760	
	Sept. 28, 1936		14.15	4,720					
					1953	Apr. 1, 1953	17.00	7,010	
1937	Feb. 15, 1937		b12.32	-					
	Feb. 21, 1937		b13.94	4,000	1954	Apr. 7, 1954	9.19	2,020	
						June 2, 1954	9.25	-	
1938	Mar. 30, 1938		12.68	3,780					
	Apr. 11, 1938		13.24	4,050	1955	Jan. 7, 1955	15.84	5,440	
						Feb. 20, 1955	16.10	5,740	
1939	Mar. 13, 1939		17.72	7,880		May 14, 1955	13.56	3,900	
	Apr. 17, 1939		15.80	5,810		May 29, 1955	15.30	5,000	
	June 22, 1939		14.05	4,500		July 6, 1955	12.51	3,360	
	Aug. 2, 1939		12.10	3,480					
					1956	July 4, 1956	10.79	2,580	
1940	Mar. 4, 1940		12.11	3,560					
1941	Jan. 18, 1941		7.69	1,590	1957	May 18, 1957	13.82	3,800	
						July 31, 1957	12.80	3,200	
1942	Nov. 2, 1941		13.60	4,270	1958	Oct. 25, 1957	20.38	10,600	
	Dec. 25, 1941		12.00	3,480		Feb. 25, 1958	12.78	3,300	
	Feb. 7, 1942		17.65	7,750		July 17, 1958	16.44	5,670	
	Mar. 17, 1942		12.80	3,840		July 20, 1958	12.76	3,300	
	Apr. 11, 1942		14.40	4,760		Aug. 1, 1958	17.41	6,740	
1943	Dec. 28, 1942		13.00	3,940	1959	Feb. 12, 1959	13.65	3,700	
	May 21, 1943		16.00	5,990					
	June 10, 1943		15.60	5,630	1960	Oct. 7, 1959	12.81	3,500	
	June 18, 1943		16.35	6,380		Mar. 30, 1960	18.14	7,850	
						May 8, 1960	16.94	6,500	
1944	Mar. 16, 1944		18.60	9,160		July 2, 1960	16.12	5,690	
	Apr. 12, 1944		18.10	8,440		July 12, 1960	12.64	3,420	
	Apr. 24, 1944		19.39	10,400					
	May 4, 1944		11.10	3,010	1961	Mar. 15, 1961	12.90	3,550	
						Mar. 22, 1961	12.27	3,300	
1945	Mar. 27, 1945		13.60	4,270		Apr. 24, 1961	13.45	3,810	
	Apr. 18, 1945		12.40	3,630		May 7, 1961	12.18	3,260	
	Apr. 27, 1945		12.00	3,430		Sept. 15, 1961	17.15	6,830	
	May 18, 1945		16.00	5,990		Sept. 26, 1961	13.67	3,990	
	June 11, 1945		15.00	5,160					
	June 18, 1945		18.74	9,310					
	Sept. 30, 1945		11.72	3,290					

SALT RIVER BASIN

Peak stages and discharges of Salt River near Shelbyville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Oct. 31, 1961	13.53	3,650	1965	Jan. 3, 1965	20.93	11,200
	Nov. 4, 1961	15.46	4,870		Jan. 24, 1965	15.89	5,420
	Nov. 18, 1961	15.28	4,710		Mar. 19, 1965	17.59	7,000
	Mar. 13, 1962	14.89	4,430		Apr. 7, 1965	16.91	6,310
	Mar. 23, 1962	15.92	5,210		June 7, 1965	13.44	3,790
1963	Mar. 6, 1963	15.69	5,030		Sept. 17, 1965	14.44	4,330
					Sept. 23, 1965	13.92	4,040
1964	Apr. 6, 1964	13.53	3,840				
	Apr. 22, 1964	14.91	4,660				

a Annual peak only.

b Backwater from ice.

SALT RIVER BASIN

5-5027. Easdale Branch near Shelbyville, Mo.

Location.--Lat 39°48'17", long 92°00'27", in SE¼SW¼ sec.22, T.58 N., R.10 W., at culvert under State Highway 168, 1.8 miles east of Shelbyville.

Drainage area.--0.71 sq mi. Slope.--76.1 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements to 95 cfs and extended above on basis of indirect measurement of flow through culvert at 159 and 431 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 30, 1958	6.70	431				
1959	May 19, 1959	5.25	255				
1960	July 10, 1960	8.75	770				
1961	May 7, 1961	6.75	435				
1962	Nov. 16, 1961	4.85	210				
1963	Mar. 4, 1963	4.33	160				
1964	June 2, 1964	7.87	610				
1965	June 2, 1965	5.90	330				

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1956	June	20, 1956	7.86	1,200	1960	July	12, 1960	5.55	745
1957	June	8, 1957	3.70	401	1961	Sept.	13, 1961	5.62	749
	June	28, 1957	3.63	393	1962	Nov.	15, 1961	4.01	453
	July	28, 1957	3.74	409					
1958	July	4, 1958	3.60	385	1963	Mar.	4, 1963	3.57	380
	July	14, 1958	4.53	538	1964	June	21, 1964	3.77	412
	July	19, 1958	3.67	393					
	July	30, 1958	4.99	631					
1959	May	31, 1959	3.51	369	1965	June	5, 1965	5.44	715
	Aug.	5, 1959	4.80	593					

SALT RIVER BASIN

5-5035. Salt River near Hunnewell, Mo.

Location.--Lat 39°40'05", long 91°54'10", in SW¼NW¼ sec.10, T.56 N., R.9 W., at bridge on U. S. Highway 36, 1½ miles downstream from Black Creek, and 2 miles west of Hunnewell.

Drainage area.--626 sq mi. Slope.--3.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 615.64 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--12 ft.

Remarks.--Some channel improvements made in drainage basin upstream from gage during period 1906-20. Only annual peaks are shown.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1931	June	8, 1931	18.50	9,280	1936	Feb.	26, 1936	18.83	9,590
1932	Aug.	20, 1932	15.22	6,560	1937	Feb.	22, 1937	13.09	4,700
1933	July	1, 1933	21.20	15,400	1938	Mar.	31, 1938	14.9	6,000
1934	Sept.	15, 1934	10.00	2,920	1939	Mar.	14, 1939	18.34	9,150
1935	June	4, 1935	19.80	11,300	1940	Mar.	5, 1940	11.05	3,600

SALT RIVER BASIN

5-5047. Bean Creek near Mexico, Mo.

Location--Lat 39°15'30", long 91°49'50", in NW¼SW¼ sec.29, T.52 N., R.8 W., at culvert under County Road J, 6.5 miles north of Mexico.

Drainage area--3.02 sq mi. Slope--33.1 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by current meter measurements to 30 cfs and extended on basis of culvert flow measurements of 564 and 853 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Apr. 16, 1960	9.15	564				
1961	May 5, 1961	10.00	950				
1962	July 3, 1962	8.48	410				
1963	May 16, 1963	7.25	200				
1964	May 12, 1964	10.38	850				
1965	July 20, 1965	9.53	640				

SALT RIVER BASIN

5-5050. South Fork Salt River at Santa Fe, Mo.

Location.--Lat 39°21'45", long 91°49'05", in NW¼NE¼ sec.20, T.53 N., R.8 W., on right bank on downstream side of highway bridge, a quarter of a mile south of Santa Fe, 1 mile upstream from Elm Creek, and at mile 96.2 above mouth of Salt River.

Drainage area.--298 sq mi. Slope.--3.6 ft per mi.

Gage.--Nonrecording prior to Feb. 5, 1940; recording thereafter. Datum of gage is 613.05 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,300 cfs; shifts in relation occur.

Bankfull stage.--14 ft.

Historical data.--Flood in about 1929 washed away county highway bridge 100 ft upstream from gage; magnitude of flood unknown.

Remarks.--Base for partial-duration series, 5,800 cfs.

		Peak stages and discharges					
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 11, 1940	13.97	5,460	1951	Mar. 17, 1951	15.88	7,210
1941	Apr. 19, 1941	16.78	7,780	1952	Mar. 18, 1952	13.79	5,410
1942	Oct. 5, 1941	19.10	10,400	1953	June 14, 1953	10.20	3,030
	Oct. 31, 1941	16.30	7,390	1954	June 2, 1954	5.42	865
	June 27, 1942	19.20	10,500				
1943	Dec. 27, 1942	20.10	11,700	1955	Feb. 19, 1955	12.02	4,100
	May 8, 1943	19.20	10,600	1956	Apr. 29, 1956	18.00	9,280
	May 19, 1943	20.36	12,100				
1944	Apr. 11, 1944	17.10	8,190	1957	Apr. 18, 1957	11.49	3,740
	Apr. 23, 1944	21.10	13,100	1958	July 20, 1958	17.89	9,060
	Apr. 27, 1944	14.90	6,470				
1945	Mar. 2, 1945	14.40	5,890	1959	Feb. 10, 1959	16.93	8,000
	Mar. 21, 1945	15.20	6,580				
	Apr. 14, 1945	14.86	6,320	1960	Mar. 28, 1960	15.99	7,120
	May 16, 1945	16.90	8,180				
	June 7, 1945	16.55	7,880	1961	May 8, 1961	19.62	11,700
	Sept. 22, 1945	15.85	7,120				
	Sept. 28, 1945	16.10	7,400				
1946	Jan. 9, 1946	16.30	7,580	1962	Mar. 21, 1962	16.54	8,240
1947	Apr. 25, 1947	17.43	8,680				
1948	Mar. 23, 1948	9.30	2,570	1963	May 16, 1963	7.03	1,460
1949	Sept. 13, 1949	14.82	6,230	1964	Apr. 5, 1964	10.54	3,300
1950	Oct. 21, 1949	17.27	8,580	1965	Apr. 11, 1965	14.04	5,840
					Sept. 16, 1965	14.54	6,290

SALT RIVER BASIN

5-5060. Youngs Creek near Mexico, Mo.

Location.--Lat 39°18'40", long 91°56'40", in NW¼SW¼ sec.5, T.52 N., R.9 W., on downstream side of bridge on State Highway 15, 6 miles upstream from Long Branch, and 11 miles north of Mexico.

Drainage area.--67.4 sq mi. Slope.--7.5 ft per mi.

Gage.--Nonrecording prior to June 1, 1956; recording thereafter. Datum of gage is 704.31 ft above mean sea level, datum of 1929 (levels by Missouri Highway Department).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--13 ft.

Historical data.--Maximum stage known, about 15.1 ft, date unknown, from information by Missouri State Highway Department.

Remarks.--Base for partial-duration series, 1,400 cfs.

Peak stages and discharges										
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)	
1937	May	3, 1937	5.08	1,080	1951	Feb. 20, 1951	5.8		1,890	
1938						Mar. 17, 1951	6.46		2,310	
	Apr. 8, 1938	6.10	1,570		June 26, 1951	6.29	2,190			
	July 17, 1938	7.80	2,470		July 12, 1951	5.10	1,470			
1939	Mar. 12, 1939	7.20	2,140	1952	Mar. 18, 1952	6.00	2,010			
	Apr. 16, 1939	6.60	1,820		Aug. 21, 1952	6.64	2,370			
	May 27, 1939	8.00	2,580	1953						
	June 20, 1939	7.65	2,360		Mar. 31, 1953	3.6	655			
	June 27, 1939	7.61	2,360							
	Aug. 12, 1939	6.20	1,620		1954	June 3, 1954	2.98	330		
	Aug. 17, 1939	12.0	5,960							
	1940				1955	Oct. 11, 1954	6.1	1,750		
June 11, 1940		7.0	2,030		Jan. 6, 1955	6.01	1,700			
					Feb. 19, 1955	6.00	1,700			
1941	Jan. 17, 1941	4.0	610		June 24, 1955	6.1	1,750			
1942					Aug. 29, 1955	7.63	2,570			
	Oct. 5, 1941	7.35	2,450	1956						
	Oct. 21, 1941	6.96	2,190		Oct. 5, 1955	7.50	2,510			
	Oct. 31, 1941	6.45	1,820		Apr. 29, 1956	7.76	2,610			
	Mar. 16, 1942	7.17	2,320		July 16, 1956	6.65	1,860			
	June 19, 1942	6.10	1,640	1957						
	June 26, 1942	12.19	6,140		May 17, 1957	6.25	1,650			
1943	Dec. 27, 1942	10.1	4,390		1958	July 16, 1958	8.05	2,530		
	May 8, 1943	7.37	2,450		July 20, 1958	9.40	3,570			
	May 11, 1943	6.20	1,700		July 31, 1958	12.52	6,530			
	May 15, 1943	8.68	3,330	1959						
	May 18, 1943	9.50	3,920		Feb. 10, 1959	7.40	2,030			
	June 6, 1943	6.18	1,700		1960					
	June 10, 1943	5.80	1,480			Mar. 28, 1960	7.67	2,670		
	June 22, 1943	5.67	1,430							
	1944				1961	Apr. 25, 1961	6.08	1,450		
Mar. 15, 1944		7.62	2,580		May 8, 1961	10.48	4,520			
Apr. 11, 1944		9.33	3,780		Sept. 13, 1961	6.03	1,400			
Apr. 23, 1944		9.06	3,620		Sept. 24, 1961	7.80	2,390			
Apr. 27, 1944		7.20	2,320	1962						
May 1, 1944		7.42	2,450		Nov. 16, 1961	5.80	1,400			
					Mar. 21, 1962	8.83	3,310			
1945	Mar. 21, 1945	6.90	2,120		July 3, 1962	8.80	3,310			
	Mar. 25, 1945	5.80	1,480		July 6, 1962	6.76	1,980			
	Apr. 14, 1945	7.30	2,380	1963						
	Apr. 17, 1945	7.33	2,380		Mar. 4, 1963	5.67	1,200			
	June 7, 1945	8.5	3,190		1964					
	Sept. 22, 1945	6.90	2,120	Apr. 5, 1964		6.32	1,670			
	1946	Jan. 5, 1946	5.85	1,890	1965	Mar. 17, 1965	7.57	2,380		
1947					Apr. 6, 1965	8.58	3,040			
	Nov. 3, 1946	5.01	1,420		June 5, 1965	5.86	1,500			
	Nov. 10, 1946	5.00	1,420		Sept. 16, 1965	8.80	3,180			
	Mar. 13, 1947	5.18	1,520							
	Apr. 1, 1947	5.90	1,950							
	Apr. 5, 1947	5.30	1,600							
	Apr. 11, 1947	5.41	1,660							
	Apr. 25, 1947	7.05	2,610							
	June 7, 1947	5.23	1,550							
	June 18, 1947	6.60	2,360							
1948	July 21, 1948	4.4	1,060							
1949	Sept. 13, 1949	4.5	1,120							
1950	Oct. 21, 1949	7.85	3,130							
	Dec. 20, 1949	7.3	2,800							

SALT RIVER BASIN

5-5065. Middle Fork Salt River at Paris, Mo.

Location.--Lat 39°29'00", long 91°59'50", in SW¼SW¼ sec.2, T.54 N., R.10 W., on right bank on downstream side of Wabash Railroad bridge in Paris, 12½ miles upstream from Elk Fork Salt River, and at mile 104.6 above mouth of Salt River.

Drainage area.--356 sq mi. Slope.--2.9 ft per mi.

Gage.--Nonrecording prior to Jan. 22, 1940: recording thereafter. Datum of gage is 621.71 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 2,400 cfs.

Peak stages and discharges								
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1940	Mar. 4, 1940	9.35	2,070	1953	Apr. 2, 1953	14.54	4,800	
1941	Sept. 3, 1941	10.60	2,520	1954	Apr. 22, 1954	9.82	2,160	
1942	Oct. 4, 1941	11.60	3,040	1955	Jan. 6, 1955	11.43	2,720	
	Nov. 2, 1941	10.93	2,670		Feb. 20, 1955	12.67	3,680	
	Feb. 8, 1942	12.96	3,860		May 29, 1955	18.93	7,920	
	Mar. 18, 1942	10.50	2,470		July 7, 1955	10.44	2,430	
	Apr. 8, 1942	11.60	3,040	1956	July 31, 1956	10.08	2,300	
	Apr. 11, 1942	11.44	2,930					
	June 27, 1942	21.76	10,500					
1943	Dec. 27, 1942	11.58	3,040	1957	May 17, 1957	10.97	2,720	
	May 17, 1943	16.78	6,430		June 15, 1957	11.40	2,930	
	June 10, 1943	11.68	3,400	1958	Oct. 27, 1957	11.20	2,670	
1944	Mar. 17, 1944	16.86	6,500		July 21, 1958	23.48	10,800	
	Apr. 12, 1944	18.52	7,730	Aug. 1, 1958	29.94	23,100		
	Apr. 24, 1944	17.50	6,960	1959	Feb. 12, 1959	12.69	3,840	
1945	Mar. 26, 1945 Apr. 14, 1945 Apr. 17, 1945 May 18, 1945 June 11, 1945 June 18, 1945	11.40	2,930		Mar. 7, 1959	12.38	3,670	
		13.60	4,240	1960	Mar. 30, 1960	15.41	5,090	
		11.91	3,210		Apr. 17, 1960	10.86	2,720	
		12.29	3,440		May 6, 1960	10.69	2,520	
		14.94	5,080		July 2, 1960	17.55	6,770	
		11.07	2,770	1961	Mar. 14, 1961	10.95	2,820	
1946	Oct. 1, 1945	10.80	2,620		May 7, 1961	14.63	4,790	
	Jan. 7, 1946	17.2	6,640		Sept. 15, 1961	25.37	13,400	
1947	Nov. 3, 1946	10.50	2,480		Sept. 24, 1961	10.55	2,570	
	Apr. 6, 1947	19.75	8,670	1962	Nov. 3, 1961	10.72	2,620	
	May 28, 1947	10.95	2,720		Nov. 16, 1961	10.79	2,670	
	June 8, 1947	18.80	7,840		Mar. 21, 1962	12.66	3,620	
	June 20, 1947	17.15	6,640		July 4, 1962	10.70	2,620	
1948	Feb. 28, 1948	10.40	2,430	1963	Mar. 5, 1963	11.30	2,920	
	Mar. 21, 1948	14.65	4,870		May 16, 1963	11.28	2,920	
1949	June 29, 1949	11.80	3,150	1964	Apr. 6, 1964	11.61	3,070	
1950	Dec. 22, 1949	10.63	2,520		Apr. 21, 1964	11.10	2,820	
1951	Mar. 29, 1951 June 30, 1951	13.68	4,280	1965	Jan. 4, 1965	11.71	3,240	
		14.88	5,060		Jan. 24, 1965	12.56	3,690	
					Mar. 17, 1965	12.73	3,740	
1952	Mar. 10, 1952 Mar. 19, 1952 Apr. 24, 1952 Sept. 3, 1952	11.01	2,720		Apr. 8, 1965	12.63	3,690	
		10.83	2,620		Sept. 16, 1965	15.02	5,090	
		11.40	2,930					
		10.65	2,520					

SALT RIVER BASIN

5-5070. Elk Fork Salt River near Paris, Mo.

Location.--Lat 39°26'25", long 92°00'05", in SE¼SE¼ sec.22, T.54 N., R.10 W., on left bank on upstream side of bridge on State Highway 15, 2½ miles south of Paris, and 11 miles upstream from mouth.

Drainage area.--262 sq mi. Slope.--3.5 ft per mi.

Gage.--Nonrecording Apr. 3, 1930, to Jan. 21, 1935 (fragmentary record); recording thereafter. Datum of gage is 630.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs; large shift in relation occurred May 27, 1939.

Bankfull stage.--14 ft.

Historical data.--Flood of June 1928 was higher than that of 1902 but might have been exceeded by the flood of 1875, from information by local residents. Flood of July 31, 1958, reached the highest stage since at least 1875.

Remarks.--Base for partial-duration series, 3,600 cfs; only annual peaks are shown prior to 1935.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1928	June	1928	19.1	18,400	1944	Mar. 15, 1944	13.58	9,140	
						Apr. 10, 1944	16.66	14,000	
1931	June	12, 1931	12.50	10,100		Apr. 23, 1944	16.55	13,800	
						May 1, 1944	9.18	4,560	
1932	Aug.	14, 1932	10.46	7,820	1945	Mar. 20, 1945	10.40	5,570	
1933	May	13, 1933	12.32	9,490		Mar. 25, 1945	11.62	6,700	
						Apr. 14, 1945	12.44	7,550	
1934	Sept.	12, 1934	8.64	5,400		May 17, 1945	9.88	5,140	
						June 8, 1945	12.25	7,330	
1935	Mar.	7, 1935	9.03	5,700		June 30, 1945	8.82	4,240	
	May	3, 1935	9.11	5,810	1946	Jan. 6, 1946	9.32	4,640	
	May	14, 1935	10.70	7,570		Mar. 23, 1946	9.76	5,050	
	May	28, 1935	11.08	8,020	1947	Nov. 3, 1946	9.84	5,050	
	June	2, 1935	8.80	5,500		Nov. 10, 1946	9.06	4,480	
1936	Feb.	26, 1936	12.20	9,360		Apr. 1, 1947	9.08	4,480	
						Apr. 5, 1947	9.82	5,050	
1937	Feb.	21, 1937	7.57	4,400		Apr. 25, 1947	9.75	5,050	
	May	3, 1937	6.88	3,600		June 7, 1947	11.83	6,900	
1938	Mar.	29, 1938	8.31	5,000		June 19, 1947	13.4	8,860	
	Apr.	9, 1938	8.02	4,700	1948	Feb. 27, 1948	8.38	4,000	
	May	23, 1938	12.99	10,400	1949	Jan. 16, 1949	7.86	3,560	
	July	18, 1938	7.24	3,900	1950	Oct. 21, 1949	8.45	3,930	
1939	Mar.	12, 1939	9.76	6,580		Dec. 21, 1949	11.90	7,000	
	May	27, 1939	11.28	5,850		Jan. 3, 1950	8.07	3,700	
	June	21, 1939	13.45	8,860	1951	Feb. 20, 1951	8.10	3,700	
	June	28, 1939	14.45	10,300		Mar. 17, 1951	9.26	4,640	
	July	25, 1939	14.20	10,000		Mar. 29, 1951	11.73	6,800	
	Aug.	17, 1939	12.67	7,910	1952	Mar. 10, 1952	9.5	4,800	
1940	June	11, 1940	9.56	4,610		Mar. 18, 1952	10.0	5,220	
1941	Jan.	17, 1941	6.40	2,420		Aug. 22, 1952	13.86	9,560	
1942	Oct.	4, 1941	10.97	5,640	1953	Apr. 1, 1953	8.65	4,080	
	Oct.	22, 1941	10.04	4,860	1954	Apr. 11, 1954	4.58	1,480	
	Oct.	31, 1941	10.07	4,940	1958	July 31, 1958	21.03	22,300	
	Feb.	6, 1942	8.45	3,700					
	Mar.	16, 1942	9.41	4,420					
	Apr.	7, 1942	9.55	4,560					
	Apr.	10, 1942	10.06	4,940					
	June	27, 1942	20.22	20,600					
1943	Dec.	27, 1942	12.75	8,040					
	May	18, 1943	14.42	10,300					
	June	10, 1943	11.70	6,700					

SALT RIVER BASIN

5-5075. Salt River near Monroe City, Mo.

Location.--Lat 39°32'25", long 91°40'20" in NE¼NW¼ sec.22, T.55 N., R.7 W., on left bank on downstream side of old bridge pier, 135 ft upstream from highway bridge at Joanna, 2,500 ft downstream from Indian Creek, 2 miles upstream from Lick Creek, 8 miles southeast of Monroe City, and at mile 63.5.

Drainage area.--2,230 sq mi, approximately. Slope.--2.8 ft per mi.

Gage.--Recording. Datum of gage is 520.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 67,000 cfs; shifts in relation occur.

Bankfull stage.--26 ft.

Remarks.--Base for partial-duration series, 20,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	June 1928	a36	-	1951	Feb. 21, 1951	19.36	22,300
1940	Mar. 3, 1940	13.40	12,600		Mar. 18, 1951	19.76	23,000
					Mar. 30, 1951	19.83	23,000
1941	Apr. 20, 1941	15.30	15,600	1952	Mar. 19, 1952	19.22	21,900
1942	Oct. 5, 1941	21.70	26,200	1953	Apr. 1, 1953	16.75	17,800
	Nov. 1, 1941	19.70	22,500				
	Feb. 6, 1942	20.60	24,100	1954	Apr. 22, 1954	9.64	6,400
	Mar. 17, 1942	19.00	21,200				
	June 28, 1942	28.7	44,900	1955	Feb. 20, 1955	21.04	25,500
					May 29, 1955	18.18	20,000
1943	Dec. 28, 1942	26.27	38,000				
	May 18, 1943	30.04	48,800	1956	Apr. 29, 1956	18.53	20,600
	June 11, 1943	21.68	26,200				
				1957	June 14, 1957	20.66	23,600
1944	Mar. 16, 1944	23.52	30,400				
	Apr. 12, 1944	29.63	47,600	1958	July 16, 1958	21.41	23,400
	Apr. 24, 1944	30.34	49,700		July 21, 1958	30.34	44,400
	May 1, 1944	18.64	20,600		Aug. 1, 1958	34.81	71,100
1945	Mar. 21, 1945	21.34	25,400	1959	Feb. 10, 1959	22.16	24,800
	Mar. 26, 1945	21.65	26,000				
	Apr. 14, 1945	23.45	30,100	1960	Mar. 30, 1960	23.37	27,000
	Apr. 17, 1945	18.60	20,500				
	May 17, 1945	22.50	28,000	1961	May 9, 1961	29.00	39,600
	June 9, 1945	23.45	30,100		Sept. 15, 1961	27.74	35,800
	June 16, 1945	18.68	20,700		Sept. 25, 1961	20.05	21,100
1946	Jan. 9, 1946	22.8	28,600	1962	Mar. 22, 1962	24.32	29,900
1947	Apr. 6, 1947	21.30	26,300	1963	Mar. 5, 1963	16.76	16,500
	Apr. 25, 1947	21.10	25,800				
	June 9, 1947	24.17	32,700	1964	Apr. 6, 1964	19.21	20,400
	June 20, 1947	23.65	31,400				
				1965	Jan. 24, 1965	19.89	21,600
1948	Feb. 28, 1948	16.20	16,500		Mar. 18, 1965	21.82	25,000
1949	July 20, 1949	13.94	12,800		Apr. 6, 1965	22.46	26,400
					Sept. 17, 1965	25.09	31,500
1950	Dec. 22, 1949	20.49	24,400				

a Approximate; from information by local resident.

SALT RIVER BASIN

5-5080. Salt River near New London, Mo.

Location--Lat 39°36'44", long 91°24'30", in NE¼ sec. 36, T.56 N., R.5 W., on left bank 180 ft upstream from upstream bridge on dual U. S. Highway 61, 2 miles north of New London, 8 miles upstream from Spencer Creek, and at mile 35.5.

Drainage area--2,480 sq mi, approximately. Slope--2.5 ft per mi.

Gage--Nonrecording prior to Jan. 18, 1935; recording thereafter. Prior to Apr. 7, 1931, at present site at datum 0.03 ft higher, and Apr. 7, 1931, to Jan. 17, 1935, at site 180 ft downstream at datum 0.04 ft lower. Datum of gage is 477.03 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage--19 ft.

Remarks--Base for partial-duration series, 25,000 cfs

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1858	July 14, 1959	a27.6		1943	Dec. 29, 1942	24.20	37,500
1922	Mar. 16, 1922	24.15	39,800		May 19, 1943	27.18	51,600
					June 11, 1943	21.28	27,900
1923	Mar. 12, 1923	15.50	15,800	1944	Mar. 17, 1944	22.55	31,800
1924	June 13, 1924	14.21	13,700		Apr. 13, 1944	26.08	45,900
					Apr. 25, 1944	26.48	47,900
1925	Mar. 19, 1925	14.70	14,500	1945	Mar. 22, 1945	21.38	28,200
					Mar. 26, 1945	21.45	28,200
1926	Apr. 8, 1926	26.64	41,700		Apr. 15, 1945	22.53	31,400
	Sept. 6, 1926	26.00	49,800		May 18, 1945	21.95	29,900
					June 10, 1945	23.2	33,800
1927	Mar. 21, 1927	23.46	36,600				
	Apr. 2, 1927	23.35	36,200	1946	Jan. 10, 1946	22.11	30,200
	Apr. 14, 1927	22.60	32,800				
				1947	Apr. 7, 1947	21.04	25,200
1928	June 21, 1928	28.8	58,700		Apr. 26, 1947	21.02	25,200
					June 10, 1947	22.77	31,100
1929	Nov. 19, 1928	24.00	37,800		June 21, 1947	23.0	31,700
	Mar. 17, 1929	23.26	35,100				
	Apr. 26, 1929	21.65	29,400	1948	Mar. 23, 1948	16.96	16,800
	May 15, 1929	21.30	28,500				
	May 20, 1929	22.30	31,600	1949	July 20, 1949	15.65	14,600
1930	Feb. 13, 1930	16.45	17,400	1950	Dec. 23, 1949	19.78	22,400
1931	June 13, 1931	22.54	33,400	1951	Mar. 18, 1951	19.91	23,500
1932	Aug. 15, 1932	18.70	23,500	1952	Mar. 19, 1952	19.13	21,800
1933	Dec. 25, 1932	20.80	29,600	1953	Apr. 1, 1953	17.1	17,800
	May 14, 1933	21.72	32,400				
	May 27, 1933	20.36	28,300	1954	Apr. 22, 1954	10.64	7,700
1934	Sept. 30, 1934	15.40	15,800	1955	Feb. 20, 1955	20.40	23,500
1935	May 4, 1935	20.60	28,900	1956	Apr. 30, 1956	18.43	19,900
	May 15, 1935	20.26	27,900				
	May 30, 1935	19.95	27,000	1957	June 15, 1957	20.44	24,600
1936	Feb. 28, 1936	22.90	36,500	1958	July 22, 1958	27.17	46,500
					Aug. 2, 1958	29.92	64,700
1937	Feb. 21, 1937	15.77	16,900	1959	Feb. 11, 1959	21.90	25,600
1938	May 24, 1938	18.31	22,400	1960	Mar. 30, 1960	22.55	29,000
1939	Mar. 13, 1939	21.13	26,900				
	Apr. 18, 1939	21.31	27,500	1961	May 9, 1961	25.70	39,600
	June 22, 1939	22.47	31,000		Sept. 16, 1961	25.08	36,600
	July 26, 1939	20.66	25,900				
1940	Mar. 3, 1940	13.97	12,600	1962	Mar. 22, 1962	23.08	30,500
1941	Apr. 20, 1941	16.37	17,600	1963	Mar. 5, 1963	17.22	16,800
				1964	Apr. 6, 1964	19.15	20,700
1942	Oct. 6, 1941	21.36	28,200				
	Feb. 7, 1942	20.49	25,800	1965	Apr. 7, 1965	21.53	26,000
	June 29, 1942	25.55	43,500		Sept. 18, 1965	23.61	32,000

a About present site and datum; from comparison with crest of June 1928 at stone marker 1 mile below gage.

BRYANTS CREEK BASIN

5-5134. Knox Branch near Elsberry, Mo.

Location--Lat 39°08'30", long 90°52'46", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T.51 N., R.1 E., at culvert on Route B, 5 $\frac{1}{2}$ miles southwest of Elsberry.Drainage area--1.17 sq mi. Slope--91.5 ft per mi.Gage--Crest-stage gage.Stage-discharge relation--Defined by estimated flow of 7 cfs and extended above on basis of slope-area measurement at 287 cfs.Bankfull stage--10 ft.Remarks--Only annual peaks are shown.

Water year	Date	Peak stages and discharges				Date	Gage height (feet)	Discharge (cfs)
		Gage height (feet)	Discharge (cfs)	Water year				
1955	Oct. 11, 1954	3.68	400					
1956	July 29, 1956	3.18	265					
1957	June 14, 1957	3.57	360					
1958	July 19, 1958	3.87	465					
1959	Aug. 17, 1959	3.92	485					
1960	June 30, 1960	4.20	580					
1961	May 7, 1961	3.65	385					

KINGS LAKE BASIN

5-5134.5. Lost Creek tributary near Elsberry, Mo.

Location--Lat 39°06'48", long 90°49'11", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T.50 N., R.2 E., 100 ft downstream from private road crossing, 4 miles southwest of Elsberry.Drainage area--0.33 sq mi. Slope--253 ft per mi.Gage--Crest-stage gage.Stage-discharge relation--Defined by estimated flow of 0.6 cfs and extended above on basis of slope-area measurement at 158 cfs.Bankfull stage--4 ft.Remarks--Only annual peaks are shown.

Water year	Date	Peak stages and discharges				Date	Gage height (feet)	Discharge (cfs)
		Gage height (feet)	Discharge (cfs)	Water year				
1955	Aug. 7, 1955	2.85	115					
1956	Oct. 6, 1955	3.45	205					
1957	June 14, 1957	4.26	335					
1958	July 19, 1958	2.95	130					
1959	Aug. 4, 1959	2.71	97					
1960	June 30, 1960	4.26	335					
1961	May 7, 1961	4.00	292					

KINGS LAKE BASIN

5-5134.7. North Fork Lost Creek near Elsberry, Mo.

Location.--39°08'47", long 90°49'24", in NE¼ sec.31, T.51 N., R.2 E., 2½ miles southwest of Elsberry.Drainage area.--2.23 sq mi. Slope.--70.5 ft per mi.Gage.--Crest-stage gage.Stage-discharge relation.--Defined by current-meter measurements below 16 cfs and extended above on basis of slope-area measurement at 380 cfs.Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 11, 1954	2.13	680				
1956	July 29, 1956	1.90	520				
1957	Apr. 22, 1957	1.72	380				
1958	July 19, 1958	(a)	b100				
1959	Aug. 5, 1959	3.51	1,220				
1960	June 30, 1960	2.80	990				
1961	May 7, 1961	1.85	480				

a Not determined; peak stage did not reach bottom of gage.
 b Less than figure shown.

KINGS LAKE BASIN

5-5135. Lost Creek at Elsberry, Mo.

Location.--Lat 39°09'20", long 90°48'20", in NW¼SE¼ sec.29, T.51 N., R.2 E., three-quarters of a mile southwest of Elsberry.Drainage area.--12.2 sq mi. Slope.--64.6 ft per mi.Gage.--Recording. Altitude of gage is 450 ft (from topographic map).Stage-discharge relation.--Defined by current-meter measurements below 170 cfs and extended above on basis of slope-area measurement at 3,880 cfs.Remarks.--Base for partial-curation series, 300 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 2, 1954	6.41	665	1958	June 25, 1958	4.85	321
	Oct. 11, 1954	8.77	1,340		July 19, 1958	8.42	1,590
	Jan. 4, 1955	5.06	355		July 30, 1958	7.70	1,240
	May 26, 1955	5.99	565	1959	Feb. 10, 1959	5.40	445
	May 28, 1955	5.31	405		Aug. 4, 1959	6.61	810
	July 14, 1955	7.25	865		Aug. 17, 1959	7.03	970
	Aug. 7, 1955	9.39	2,190		Aug. 29, 1959	5.80	560
1956	Oct. 6, 1955	7.86	1,330	1960	Oct. 10, 1959	9.53	2,260
	Apr. 29, 1956	8.12	1,430		Mar. 27, 1960	5.47	458
	July 18, 1956	5.71	530		Mar. 30, 1960	4.80	310
	July 29, 1956	9.34	2,130		Mar. 6, 1960	4.93	343
1957	Mar. 24, 1957	5.03	360		May 25, 1960	9.30	2,130
	Apr. 8, 1957	4.99	345		June 30, 1960	11.48	3,880
	May 13, 1957	5.29	420		July 12, 1960	4.86	321
	May 17, 1957	4.89	325	1961	Apr. 25, 1961	5.01	354
	May 19, 1957	7.06	970		May 5, 1961	8.95	1,950
	May 21, 1957	7.56	1,200		May 8, 1961	10.50	3,000
	May 22, 1957	6.42	740				
	June 14, 1957	10.88	3,340				

KINGS LAKE BASIN

5-5136. Camp Creek near Elsberry, Mo.

Location--Lat 39°06'56", long 90°46'23", in southwest portion of Survey 1724, T.50 N., R.2 E., at culvert on State Highway 79, 3.6 miles south of Elsberry.

Drainage area--1.50 sq mi. Slope--126 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by current-meter measurements below 90 cfs and extended above on basis of slope-area measurement at 668 cfs.

Bankfull stage--5 ft.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	3.74	440	1961	May 7, 1961	4.39	710
				1962	July 4, 1962	4.16	620
1956	July 29, 1956	3.37	320	1963	Mar. 4, 1963	2.17	75
1957	May 21, 1957	4.77	950	1964	July 10, 1964	2.39	105
1958	July 19, 1958	3.54	370	1965	Aug. 26, 1965	3.25	285
1959	Aug. 4, 1959	2.95	200				
1960	June 30, 1960	3.94	530				

KINGS LAKE BASIN

5-5136.5. Hurricane Creek near Elsberry, Mo.

Location--Lat 39°06'29", long 90°46'13", in southwest portion of Survey 1724, T.50 N., R.2 E., at culvert on State Highway 79, 4.1 miles south of Elsberry.

Drainage area--3.06 sq mi. Slope--86.3 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by current-meter measurements below 210 cfs and extended above on basis of culvert flow measurement at 1,620 cfs.

Bankfull stage--8 ft.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	7.76	780	1961	May 7, 1961	5.46	200
				1962	July 4, 1962	7.07	710
1956	July 29, 1956	8.43	1,070	1963	Mar. 4, 1963	5.09	115
1957	June 14, 1957	9.56	1,620	1964	July 12, 1964	5.95	310
1958	July 19, 1958	7.70	760	1965	Aug. 7, 1965	7.68	1,050
1959	Aug. 4, 1959	5.79	280				
1960	Oct. 10, 1959	7.56	960				

CUIVRE RIVER BASIN

5-5137. Mams Slough Creek near Wellsville, Mo.

Location.--Lat 39°09'45", long 91°39'40", in NW¼NW¼ sec.35, T.51 N., R.7 W., at bridge on U. S. Highway 54, 8 miles northwest of Wellsville.

Drainage area.--5.08 sq mi. Slope.--14.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements to 20 cfs and extended on basis of slope-area measurements of 86.8 and 838 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	-	-	302				
1956	-	-	480				
1957	-	-	390				
1961	-	-	650				
1962	-	-	820				
1963	-	-	255				
1964	-	-	145				
1965	-	-	842				

CUIVRE RIVER BASIN

5-5142. Reid Branch near Bowling Green, Mo.

Location.--Lat 39°15'15", long 91°02'50", in SE¼ west part of Survey No. 1685, T.52 N., R.1 W., upstream from culvert on U. S. Highway 61, 3.9 miles south of Cyrene, and 10 miles south of Bowling Green.

Drainage area.--0.54 sq mi. Slope.--93.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by culvert-flow measurements between 140 and 500 cfs.

Bankfull stage.--8 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Apr. 22, 1955	3.37	66	1961	July 25, 1961	6.97	390
				1962	July 3, 1962	4.63	160
1956	July 3, 1956	4.65	162	1963	May 12, 1963	6.46	330
1957	June 8, 1957	4.57	156	1964	-	(b)	(c)
1958	July 19, 1958	5.37	223	1965	Sept. 16, 1965	4.01	112
1959	July 17, 1959	a6.0	280				
1960	May 25, 1960	8.15	498				

a About.

b Peak stage did not reach bottom of gage.

c Discharge not determined.

Peak stages and discharges											
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)		
1922	Mar.	14, 1922	24.50	44,200	1943	Dec.	27, 1942	27.58	41,500		
	Apr.	8, 1922	23.30	36,700		May	11, 1943	24.34	23,100		
	Apr.	15, 1922	21.00	24,800		May	18, 1943	27.00	37,000		
1923	Mar.	12, 1923	22.46	32,200	1944	Apr.	11, 1944	25.86	30,500		
	Aug.	17, 1923	22.40	31,600		Apr.	22, 1944	26.92	36,400		
1924	Dec.	13, 1923	20.42	22,400	1945	Mar.	26, 1945	24.9	25,600		
1925	Mar.	19, 1925	20.24	21,600		May	15, 1945	24.53	23,900		
						Sept.	23, 1945	23.60	20,500		
1926	Nov.	6, 1925	21.20	25,700	1946	Sept.	29, 1945	23.48	20,100		
		Apr.	7, 1926	22.90		34,400	Jan.	9, 1946	24.0	21,900	
		Sept.	5, 1926	25.40		50,000	1947	Nov.	1, 1946	26.00	30,000
1927	Oct.	1, 1926	21.45	26,600		Nov.		3, 1946	24.80	24,200	
	Oct.	3, 1926	20.40	22,400		Apr.		25, 1947	27.1	37,200	
	Nov.	15, 1926	20.95	24,800	1948	July	26, 1948	23.11	18,000		
	Mar.	9, 1927	23.00	34,900							
	Apr.	1, 1927	23.40	37,300							
	Apr.	13, 1927	23.40	37,300	1949	Jan.	24, 1949	24.30	21,000		
	May	8, 1927	20.00	20,800		July	21, 1949	25.88	29,200		
	May	25, 1927	20.35	22,400		1950	Dec.	22, 1949	23.94	19,400	
1928	Apr.	6, 1928	22.15	30,500							
	June	20, 1928	23.77	39,700	1951						Feb.
1929	Oct.	9, 1928	20.85	24,000		Mar.	18, 1951	25.49	26,900		
			Mar.	16, 1929	24.40	43,500	1952	Apr.	12, 1952	19.51	10,300
			May	3, 1929	20.00	20,800					
			May	13, 1929	21.20	25,700	1953	May	5, 1953	17.70	8,050
			May	18, 1929	25.75	52,600					
			June	13, 1929	20.00	20,800	1954	July	2, 1954	7.88	1,960
			1930	Jan.	2, 1930	19.10					
1931	May	20, 1931	23.58	21,300	1955	July	15, 1955	21.48	13,100		
1932	Aug.	13, 1932	20.20	13,900	1956	Apr.	29, 1956	19.25	9,290		
1933	Aug.	13, 1932	20.20	13,900	1957	June	8, 1957	23.95	21,000		
1934	May	13, 1933	24.22	26,200	1958	July	20, 1958	25.51	20,200		
1935	Sept.	29, 1934	20.20	13,900	1959	Aug.	1, 1958	26.54	23,100		
1936	May	15, 1935	24.78	30,000	1960	Feb.	10, 1959	24.96	19,200		
1937	Nov.	5, 1935	22.69	19,000		Oct.	11, 1959	24.46	21,700		
1938	Nov.	3, 1936	25.80	36,900	Mar.	28, 1960	25.13	24,700			
1939	Apr.	9, 1938	23.7	23,300	1961	May	8, 1961	25.32	25,700		
1939	Mar.	12, 1939	23.80	23,900	1962	Mar.	21, 1962	26.00	31,500		
	Apr.	16, 1939	25.03	31,300	1963	Mar.	5, 1963	18.65	9,000		
1940	June	28, 1940	15.20	8,540		1964	Apr.	6, 1964	17.00	7,420	
					1965	Sept.	23, 1965	23.92	21,000		
1941	Apr.	20, 1941	26.4	41,300							
1942	Oct.	5, 1941	33.4	120,000							
	Oct.	31, 1941	24.20	22,700							
	June	26, 1942	24.00	21,900							

PERUQUE CREEK BASIN

5-5147. Dry Branch near Wentzville, Mo.

Location--Lat 38°49'10", long 90°54'20", in NW¼ sec.22, T.47 N., R.1 E., at bridge on Point Prairie Road 3 miles northwest of Wentzville.

Drainage area--0.97 sq mi. Slope--68.8 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Not defined.

Remarks--Only annual peak stages are shown, except for 1957.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 10, 1955	12.44	-	1961	May 8, 1961	12.02	-
				1962	Mar. 20, 1962	12.34	-
1956	-	(a)	-	1963	Sept. 11, 1963	11.9	-
1957	June 15, 1957	15.42	752	1964	May 28, 1964	10.8	-
1958	-	(a)	-	1965	Aug. 26, 1965	11.19	-
1959	-	(a)	-				
1960	June 29, 1960	12.64	-				

a Not determined; peak stage did not reach bottom of gage.

MISSISSIPPI RIVER MAIN STEM

5-5875. Mississippi River at Alton, Ill.

Location.--Lat 38°53'06", long 90°10'51", in sec.14, T.5 N., R.10 W., near left bank in downstream end of intermediate lock wall of lock and dam 26 at Alton, 300 ft downstream from Missouri & Illinois Bridge & Belt Railroad bridge, 7.7 miles upstream from Missouri River, and at mile 202.7 above Ohio River.

Drainage area.--171,500 sq mi, approximately.

Gage.--Nonrecording 1879 to Jan. 4, 1937, and Nov. 11, 1937, to Jan. 31, 1938; recording Jan. 5 to Nov. 10, 1937, and since Feb. 1, 1938. Prior to Mar. 20, 1933, at Grafton 15.3 miles upstream at datum 403.79 ft higher than present datum; Mar. 20, 1933, to Jan. 31, 1938, at present site at datum 395.48 ft higher than present datum. Datum of gage is mean sea level, datum of 1929 (levels by Corps of Engineers). Since July 11, 1940, auxiliary recording gage 5.9 miles downstream; previously various combinations of gages were used. Gage heights listed herein are converted to present datum.

Stage-discharge relation.--Affected by backwater from Missouri River. Fall between auxiliary gage and reference gage used as a factor in computing discharge.

Bankfull stage.--421 ft.

Historical data.--Maximum stage known, 432.10 ft, present datum, in June 1844.

Remarks.--Alton gage-height record and discharge record January 1928 to February 1933 (published as "at Grafton" prior to January 1933), February 1938 to September 1939 furnished by Corps of Engineers. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin and by diversion through Chicago Sanitary and Ship Canal from Lake Michigan into Illinois River. Peak gage height usually occurs at different time than peak discharge. Only annual peaks are shown.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1844	June	1844	a432.10		1926	Sept. 30,	1926	416.8	
					1927	Apr. 25,	1927	426.7	
1851	June	1851	427.9		1928	Apr. 9,	1928	-	216,000
						June 22,	1928	417.3	-
1858	June	1858	428.2	b573,000	1929	Apr. 29,	1929	425.6	365,000
					1930	June 21,	1930	412.0	186,000
1880	July 10,	1880	417.15						
					1931	June 14,	1931	408.0	145,000
1881	May 5,	1881	423.92		1932	Nov. 30,	1931	414.2	182,000
					1933	May 17,	1933	418.9	265,000
1888	June 19,	1888	420.40		1934	Apr. 24,	1934	405.0	97,200
					1935	May 17,	1935	424.4	231,000
1896	May 26,	1896	418.9						
1897	May 2,	1897	421.93		1936	Mar. 1,	1936	413.5	218,000
1898	May 23,	1898	417.58		1937	Mar. 15,	1937	414.9	255,000
1899	May 26,	1899	416.4		1938	Apr. 11,	1938	416.9	268,000
1900	Mar. 16,	1900	415.2		1939	Mar. 17,	1939	421.2	240,000
					1940	Apr. 19,	1940	407.10	137,000
1901	Apr. 12,	1901	414.2						
1902	July 25,	1902	418.5		1941	Apr. 21,	1941	417.27	220,000
1903	June 9,	1903	429.3		1942	June 22,	1942	423.72	253,000
1904	Apr. 29,	1904	424.4		1943	May 24,	1943	429.91	437,000
1905	Sept. 20,	1905	419.4		1944	Apr. 30,	1944	429.33	c394,600
					1945	June 13,	1945	424.14	308,000
1906	Apr. 14,	1906	416.6						
1907	July 25,	1907	417.6		1946	Jan. 14,	1946	419.10	314,000
1908	June 18,	1908	425.1		1947	July 3,	1947	429.40	380,000
1909	July 15,	1909	425.2		1948	Mar. 28,	1948	424.41	366,000
1910	May 10,	1910	414.93		1949	Mar. 13,	1949	415.08	219,000
					1950	June 24,	1950	417.20	261,000
1911	Feb. 23,	1911	412.9						
1912	Apr. 9,	1912	422.8		1951	May 10,	1951	429.47	333,000
1913	Apr. 14,	1913	418.7		1952	Apr. 30,	1952	424.47	340,000
1914	June 22,	1914	410.9		1953	Apr. 5,	1953	413.50	232,000
1915	June 4,	1915	422.1		1954	May 19,	1954	409.58	198,000
					1955	Apr. 28,	1955	409.66	212,000
1916	Jan. 31,	1916	421.6						
1917	June 14,	1917	423.5		1956	Apr. 30,	1956	406.30	166,000
1918	June 16,	1918	414.1		1957	June 16,	1957	411.69	180,000
1919	May 11,	1919	419.6		1958	July 21,	1958	418.98	209,000
1920	Apr. 24,	1920	420.6		1959	Apr. 8,	1959	413.31	221,000
					1960	Apr. 10,	1960	424.84	377,000
1921	May 13,	1921	416.8						
1922	Apr. 19,	1922	427.1		1961	Apr. 9,	1961	421.62	247,000
1923	June 17,	1923	412.2		1962	Mar. 26,	1962	421.42	337,000
1924	July 3,	1924	418.3		1963	Mar. 23,	1963	409.58	179,000
1925	June 25,	1925	411.6		1964	Apr. 22,	1964	410.17	214,000
					1965	May 3,	1965	420.75	380,000

a Maximum stage known.

b Computed by Corps of Engineers

c Excludes diversion from Missouri River.

TARKIO RIVER BASIN

6-8125. West Tarkio Creek near Westboro, Mo.

Location.--Lat 40°32'30", long 95°23'00", in NW¼ sec.13, T.66 N., R.40 W., at bridge on county highway C, 3½ miles west of Westboro, and 6 miles upstream from confluence with Middle Tarkio Creek.

Drainage area.--105 sq mi. Slope.--7.4 ft per mi.

Gage.--Nonrecording prior to July 19, 1934, recording gage thereafter. Datum of gage is 926.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,630 cfs and by indirect measurements at 8,720 cfs.

Bankfull stage.--25 ft.

Remarks.--Base for partial-duration series, 1,600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1934	Sept. 26, 1934	5.50	172				
1935	June 1, 1935	9.76	1,710				
	June 17, 1935	14.55	4,640				
	June 26, 1935	12.72	3,430				
1936	Feb. 26, 1936	9.46	1,960				
	Apr. 28, 1936	14.69	5,310				
	May 12, 1936	10.02	2,260				
	June 5, 1936	11.00	2,830				
1937	Feb. 13, 1937	9.82	2,150				
	Mar. 2, 1937	9.42	1,930				
	July 29, 1937	22.10	8,720				
1938	June 11, 1938	16.87	5,600				
	June 16, 1938	10.00	2,280				
	Aug. 20, 1938	12.00	3,190				
	Sept. 10, 1938	8.70	1,740				
1939	Mar. 8, 1939	8.76	1,670				
	Mar. 11, 1939	18.91	6,810				
	June 10, 1939	9.05	2,378				
	June 22, 1939	11.89	3,741				
1940	July 27, 1940	16.14	a5,760				

a Annual peak only

TARKIO RIVER BASIN

6-8130. Tarkio River at Fairfax, Mo.

Location.--Lat 40°20'20", long 95°24'20", in SW¼SW¼ sec.22, T.64 N., R.40 W., on downstream side of left bridge pier 0.5 mile west of Fairfax, and 2 miles downstream from unnamed creek.

Drainage area.--508 sq mi. Slope.--4.93 ft per mi.

Gage.--Nonrecording prior to Oct. 23, 1953 at site 50 ft downstream, and at datum 2.0 ft higher prior to Oct. 1, 1931. Recording gage since Oct. 23, 1953. Datum of gage is 867.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs. Levees confine flow to channel until overtopped or crevassed.

Bankfull stage.--17 ft.

Remarks.--Gage heights adjusted to present datum. Channel was straightened and improved prior to beginning of records. Base for partial-duration series, 4,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 9, 1922	15.06	2,850	1943	June 5, 1943	17.05	6,710
					June 10, 1943	17.7	7,560
1923	May 11, 1923	8.60	1,100		June 16, 1943	17.00	6,710
1924	June 12, 1924	17.95	6,610	1944	May 3, 1944	18.00	7,960
	June 24, 1924	16.64	5,700				
	July 17, 1924	17.00	5,960	1945	May 14, 1945	15.65	5,310
	July 19, 1924	16.10	5,380		July 5, 1945	16.00	5,670
1925	June 15, 1925	14.80	4,530		Aug. 3, 1945	18.91	9,400
					Aug. 14, 1945	15.20	4,960
1926	June 13, 1926	15.70	5,120	1946	Sept. 4, 1946	12.0	4,760
	Sept. 4, 1926	19.3	7,940				
1927	Oct. 3, 1926	9.53	1,740	1947	June 5, 1947	17.87	11,800
1928	Sept. 12, 1928	18.71	7,090		June 12, 1947	18.56	12,700
					June 18, 1947	19.5	14,000
1929	Mar. 6, 1929	17.60	6,350		June 22, 1947	12.50	5,310
	July 7, 1929	22.33	15,000	1948	Mar. 19, 1948	14.1	7,340
	July 15, 1929	18.00	6,610	1949	Feb. 18, 1949	a15.12	--
1930	June 19, 1930	8.86	1,560		Feb. 24, 1949	a20.44	b4,000
					Mar. 4, 1949	a15.2	6,980
1931	June 15, 1931	16.15	5,310		June 2, 1949	19.0	12,800
					June 28, 1949	19.85	14,100
1932	Nov. 23, 1931	15.70	5,810	1950	May 9, 1950	18.0	11,200
	May 30, 1932	15.96	6,000		June 9, 1950	14.0	5,600
	Aug. 15, 1932	15.20	5,500				
1933	Aug. 21, 1933	11.80	3,570	1951	Oct. 2, 1950	13.36	5,000
					Apr. 25, 1951	14.70	8,780
1934	Sept. 26, 1934	5.90	710		May 1, 1951	17.50	12,700
					June 2, 1951	16.90	10,500
1935	Oct. 19, 1934	14.80	4,860		June 22, 1951	12.75	5,080
	June 1, 1935	18.00	6,670		June 26, 1951	12.70	4,970
					Aug. 26, 1951	13.10	5,420
1936	Apr. 28, 1936	15.22	5,080	1952	June 21, 1952	14.08	6,630
					June 27, 1952	13.10	5,420
1937	Mar. 2, 1937	15.05	6,300		July 14, 1952	15.35	8,360
	Apr. 20, 1937	17.15	8,600	1953	June 9, 1953	11.06	2,120
	July 30, 1937	17.20	8,730	1954	June 9, 1954	11.81	2,660
1938	June 11, 1938	14.50	5,800	1955	Feb. 18, 1955	15.0	5,000
	Aug. 6, 1938	17.7	9,480				
	Aug. 21, 1938	14.00	5,300	1956	July 8, 1956	15.32	4,630
1939	Mar. 12, 1939	18.8	10,900	1957	May 30, 1957	16.16	5,860
	June 21, 1939	16.00	7,410		June 7, 1957	17.40	7,610
1940	July 28, 1940	17.00	5,800		June 18, 1957	19.00	10,400
	Aug. 27, 1940	17.5	6,150				
1941	June 9, 1941	20.3	12,400	1958	July 2, 1958	16.80	6,700
	Sept. 15, 1941	17.80	7,690		July 4, 1958	18.10	8,770
1942	Oct. 4, 1941	16.90	6,600		July 19, 1958	20.95	14,200
	Oct. 7, 1941	17.70	7,560		July 30, 1958	20.30	12,800
	Oct. 22, 1941	18.55	8,870		Aug. 6, 1958	19.28	10,900
	Oct. 31, 1941	16.10	5,770	1959	May 30, 1959	18.82	9,990
	May 5, 1942	18.63	8,870		June 30, 1959	16.13	5,730
	May 11, 1942	12.70	6,170		Aug. 31, 1959	15.45	4,860
	June 20, 1942	18.91	16,300				
	June 25, 1942	20.50	13,800				

TARKIO RIVER BASIN

Peak stages and discharges of Tarkio River at Fairfax, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 13, 1960	19.9	12,000	1961	Apr. 11, 1961	14.40	4,830
	Mar. 29, 1960	19.8	11,900		July 2, 1961	18.50	9,900
	May 16, 1960	16.4	7,920		Sept. 13, 1961	18.36	9,770
	Aug. 18, 1960	15.35	6,030		Sept. 30, 1961	14.80	5,310
	Aug. 29, 1960	17.6	8,750	1962	May 28, 1962	16.25	7,000
1963	May 28, 1962	14.55	5,070		July 22, 1962	14.55	5,070
	Apr. 29, 1963	17.12	8,120	1964	Apr. 27, 1964	13.45	5,000
1965	Apr. 27, 1964	13.45	5,000		May 8, 1964	14.00	5,660
	May 26, 1964	15.90	7,880		May 26, 1964	15.90	7,880
	June 20, 1964	17.65	9,920		June 20, 1964	17.65	9,920
	June 23, 1964	17.50	9,800		June 23, 1964	17.50	9,800
	Mar. 1, 1965	16.36	8,960	1965	Mar. 1, 1965	16.36	8,960
1966	May 26, 1965	13.36	5,000		May 26, 1965	13.36	5,000
	July 2, 1965	20.60	13,800		July 2, 1965	20.60	13,800
	July 20, 1965	19.63	9,440		July 20, 1965	19.63	9,440
	Sept. 21, 1965	15.60	7,520		Sept. 21, 1965	15.60	7,520

a Backwater from ice.

b Mean daily discharge.

NODAWAY RIVER BASIN

6-8155.5. Staples Branch near Burlington Junction, Mo.

Location.--Lat 40°26'15", long 95°12'05", in SW¼SE¼ sec .17, T.65 N., R.38 W., on right bank just upstream from culvert under State Highway 4, about 7.3 miles west of Burlington Junction, 0.3 mile west on State Highway 4 from junction of County Route YY and junction State Highway 4.

Drainage area.--0.49 sq mi. Slope.--61.1 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed June 3, 1965.

Stage-discharge relation.--Defined by indirect measurements to 370 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	May 4, 1959	13.78	248	1960	June 4, 1960	12.70	163
1960	June 4, 1960	12.70	163				
1961	Oct. 29, 1960	10.56	31	1962	May 28, 1962	15.20	371
1962	May 28, 1962	15.20	371		May 4, 1963	13.02	190
1963	May 4, 1963	13.02	190	1964	June 21, 1964	15.72	430
1964	June 21, 1964	15.72	430		July 1, 1965	14.16	280
1965	July 1, 1965	14.16	280				

MILL CREEK BASIN

6-8160. Mill Creek at Oregon, Mo.

Location--Lat 39°58'55", long 95°07'35", in NE¼NE¼ sec.35, T.60 N., R.38 W., on left bank 15 ft downstream from bridge on U. S. Highway 275, half a mile upstream from Rock Creek, 1 mile southeast of Oregon, and 7 miles upstream from mouth.

Drainage area--4.90 sq mi. Slope--42.3 ft per mi.

Gage--Recording. Datum of gage is 921.26 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 800 cfs.

Bankfull stage--10 ft.

Remarks--Base for partial-duration series, 150 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 1, 1950	4.37	678	1958	May 3, 1958	3.72	385
	Mar. 2, 1951	4.75	840		May 4, 1958	2.97	184
	Apr. 27, 1951	3.78	365		June 12, 1958	3.73	389
	June 15, 1951	4.04	518		June 12, 1958	4.80	930
	June 19, 1951	4.17	576		July 10, 1958	3.50	305
	June 21, 1951	4.40	695		July 11, 1958	3.87	446
	June 22, 1951	3.75	397		July 15, 1958	4.00	500
	June 26, 1951	3.42	274		July 17, 1958	3.14	214
	June 27, 1951	3.90	458		July 25, 1958	4.20	590
	June 28, 1951	4.10	545		July 30, 1958	7.0	2,640
	July 5, 1951	3.03	169		Aug. 1, 1958	3.22	228
	Aug. 9, 1951	3.83	429		Aug. 20, 1958	3.32	255
	Aug. 14, 1951	4.13	558		Sept. 6, 1958	3.97	487
	Aug. 15, 1951	4.37	678		Sept. 9, 1958	5.50	1,420
	Aug. 24, 1951	3.80	417		Sept. 23, 1958	3.60	341
	Aug. 27, 1951	3.39	264	1959	Nov. 17, 1958	3.0	177
	Aug. 31, 1951	3.08	180		May 12, 1959	2.88	153
	Sept. 2, 1951	3.20	208		May 21, 1959	3.77	405
	Sept. 9, 1951	3.17	201		May 29, 1959	3.22	228
1952	Nov. 12, 1951	3.14	194		May 30, 1959	3.11	201
	May 21, 1952	2.98	158		May 31, 1959	3.50	307
1953	Nov. 17, 1952	2.51	78		June 11, 1959	2.96	169
					June 29, 1959	4.00	500
1954	Aug. 21, 1954	4.20	590		July 4, 1959	3.45	292
	Aug. 23, 1954	3.10	184		Aug. 5, 1959	3.22	228
1955	Oct. 4, 1954	3.84	433	1960	June 30, 1960	4.48	739
	Feb. 18, 1955	a	a	1961	Sept. 3, 1961	7.10	2,730
	June 3, 1955	3.34	248	1962	May 28, 1962	4.5	750
	June 24, 1955	4.42	706	1963	May 16, 1963	4.45	722
	July 6, 1955	3.95	479	1964	June 21, 1964	4.61	816
1956	July 2, 1956	3.8	417	1965	June 4, 1965	4.92	1,000
	July 3, 1956	3.10	184				
	Aug. 8, 1956	3.41	270				
1957	Apr. 2, 1957	3.50	301				
	June 14, 1957	3.71	381				
	June 25, 1957	3.17	221				

a Gage height and discharge unknown.

NODAWAY RIVER BASIN

6-8175. Nodaway River near Burlington Junction, Mo.

Location--Lat 40°26'40", long 95°05'20", in NW¼ sec.17, T.65 N., R.37 W., on downstream side of left pier of bridge on State Highway 4, a quarter of a mile upstream from Mill Creek, 0.5 mile downstream from Wabash Railroad bridge, and 1½ miles west of Burlington Junction.

Drainage area--1,240 sq mi, approximately. Slope--4.21 ft per mi.

Gage--Nonrecording prior to June 29, 1939; recording gage thereafter. At present site at approximately same datum prior to Oct. 26, 1928. At site half a mile upstream at different datum Oct. 26, 1928, to June 9, 1929. At present site and datum since June 10, 1929. Datum of present gage is 896.17 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--18 ft.

Remarks--Channel improvement made above and below gage prior to establishment of station. Base for partial-duration series, 8,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water	Date	Gage height (feet)	Discharge (cfs)
1922	July 29, 1922	10.42	6,710	1942	June 20, 1942	13.95	13,200
					June 25, 1942	15.95	16,800
1923	Mar. 26, 1923	7.94	3,480				
1924	June 9, 1924	12.60	9,900	1943	June 5, 1943	15.30	16,700
	June 26, 1924	13.42	10,200		June 10, 1943	15.5	17,200
					June 16, 1943	13.60	13,300
1925	June 14, 1925	9.50	5,000		Aug. 3, 1943	12.73	11,600
1926	Feb. 2, 1926	13.38	10,200	1944	Apr. 23, 1944	12.16	10,400
	June 13, 1926	12.26	8,550		May 2, 1944	16.9	20,300
	Sept. 3, 1926	19.5	18,200		June 4, 1944	12.13	10,400
1927	Oct. 3, 1926	13.25	6,800	1945	Mar. 15, 1945	12.25	10,900
					Apr. 16, 1945	13.20	12,900
1928	June 17, 1928	13.79	9,420		May 14, 1945	15.93	18,500
	July 21, 1928	15.70	12,800		May 21, 1945	11.23	9,100
					July 5, 1945	12.30	11,100
1929	Mar. 6, 1929	15.60	12,600		Aug. 14, 1945	11.20	9,100
	Mar. 14, 1929	16.20	13,800	1946	Mar. 26, 1946	13.9	13,900
	Apr. 21, 1929	14.20	10,000		June 19, 1946	11.29	9,000
	June 1, 1929	17.59	16,800				
	July 6, 1929	19.40	21,000	1947	Apr. 10, 1947	14.20	18,700
	July 15, 1929	17.50	16,600		May 28, 1947	10.12	8,860
1930	May 7, 1930	11.20	6,220		June 6, 1947	17.90	28,800
1931	Sept. 25, 1931	9.40	4,100		June 14, 1947	19.0	32,000
					June 18, 1947	13.60	17,100
1932	Nov. 23, 1931	14.45	13,900	1948	June 21, 1947	16.00	23,800
	Aug. 15, 1932	15.00	15,400				
1933	Apr. 1, 1933	6.55	1,750	1949	Mar. 19, 1948	14.6	19,700
1934	Sept. 27, 1934	7.20	2,150		Feb. 24, 1949	a18.3	9,000
1935	May 31, 1935	13.45	10,600		Mar. 5, 1949	a19.69	10,000
	June 2, 1935	12.62	9,760		June 2, 1949	15.97	23,500
	June 18, 1935	11.97	8,500		June 27, 1949	15.70	22,700
1936	Feb. 25, 1936	10.95	6,520	1950	May 9, 1950	13.74	17,400
1937	Mar. 4, 1937	14.55	17,100	1951	Feb. 26, 1951	9.65	11,500
	May 21, 1937	11.97	11,300		Mar. 28, 1951	12.07	13,400
	July 19, 1937	11.50	10,300		Apr. 25, 1951	10.18	9,070
					May 1, 1951	16.42	24,600
1938	May 31, 1938	17.07	19,800		May 10, 1951	10.28	9,280
	June 14, 1938	12.50	10,700		May 25, 1951	14.90	20,500
	Aug. 21, 1938	11.99	9,860		June 2, 1951	15.50	22,200
1939	Mar. 21, 1939	16.7	19,600		June 15, 1951	12.05	13,200
	June 21, 1939	12.00	10,300		July 3, 1951	11.40	11,700
	July 4, 1939	15.41	17,000		July 6, 1951	13.90	17,900
1940	July 28, 1940	11.74	8,140		Aug. 15, 1951	10.40	9,490
1941	June 4, 1941	12.80	11,200		Aug. 26, 1951	10.17	9,070
	June 9, 1941	18.44	22,100	1952	Sept. 9, 1951	10.25	9,070
	Sept. 15, 1941	16.47	17,700		Mar. 11, 1952	9.63	9,920
1942	Oct. 7, 1941	13.32	12,000		May 22, 1952	10.10	8,860
	Oct. 22, 1941	15.26	15,600		June 22, 1952	12.44	14,100
	Oct. 31, 1941	15.20	15,400	1953	June 9, 1953	7.53	4,300
	May 5, 1942	16.95	19,000	1954	May 31, 1954	8.45	5,680
	May 11, 1942	11.93	9,850	1955	Feb. 18, 1955	11.6	12,200
				1956	July 8, 1956	10.85	10,000
				1957	June 18, 1957	8.70	5,820

NODAWAY RIVER BASIN

Peak stages and discharges of Nodaway River near Burlington Junction, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 3, 1958	13.29	16,200	1962	Mar. 11, 1962	10.00	10,800
	July 19, 1958	16.87	26,000		Mar. 20, 1962	9.60	10,600
	July 30, 1958	14.22	18,600		May 29, 1962	12.20	16,300
1959					July 22, 1962	10.00	10,000
	May 11, 1959	11.65	11,700	1963	Apr. 29, 1963	14.83	22,900
	May 30, 1959	15.55	22,400		May 15, 1963	9.15	9,800
	June 30, 1959	15.50	22,200	1964	Apr. 13, 1964	8.30	9,020
	Aug. 6, 1959	11.0	10,200		Apr. 27, 1964	8.78	9,020
	Sept. 26, 1959	13.52	16,200		May 8, 1964	10.00	11,400
1960	Jan. 12, 1960	16.90	26,000		May 26, 1964	13.87	20,600
	Jan. 14, 1960	11.52	11,400		June 15, 1964	9.27	9,800
	Mar. 28, 1960	16.10	25,700		June 20, 1964	11.95	15,800
	June 5, 1960	13.12	17,500		June 23, 1964	13.15	18,800
	June 30, 1960	11.43	13,000		Sept. 7, 1964	9.70	10,800
	Aug. 29, 1960	12.70	16,400	1965	Mar. 1, 1965	12.25	24,200
1961	Mar. 13, 1961	11.30	14,200		Mar. 17, 1965	12.50	19,600
	Mar. 27, 1961	9.82	11,000		Apr. 6, 1965	8.20	8,830
	Apr. 12, 1961	10.97	13,500		Apr. 8, 1965	9.12	10,000
	Sept. 13, 1961	11.60	14,900		June 29, 1965	9.60	10,600
1962	Oct. 12, 1961	9.15	9,400		July 2, 1965	16.75	28,100
	Nov. 16, 1961	9.83	11,000		Sept. 21, 1965	10.10	11,400
	Feb. 15, 1962	9.80	10,000				

a Backwater from ice; discharge is estimated mean for day.

MISSOURI RIVER MAIN STEM

6-8180. Missouri River at St. Joseph, Mo.
(Published as "at Leavenworth, Kans." prior to 1929)

Location--Lat 39°45'10", long 94°51'28", in sec.17, T.57 N., R.35 W., on downstream side of left pier of St. Joseph & Grand Island Railroad bridge in St. Joseph and at mile 448.2.

Drainage area--424,300 sq mi; 425,000 sq mi prior to Oct. 1, 1928.

Gage--Nonrecording prior to Oct. 20, 1931; recording gage thereafter. At site 52.1 miles downstream from and at datum 74.66 ft lower prior to Oct. 1, 1928. At present site at datum 5.50 ft higher Oct. 1, 1928, to Jan. 1, 1934. Datum of present gage is 788.19 ft above mean sea level, datum of 1929.

Stage-discharge relation--Continually shifting, must be defined by frequent current-meter measurements.

Bankfull stage--17 ft.

Remarks--Gage heights adjusted to present datum. Records for sites "at St. Joseph" and "at Leavenworth" considered equivalent for flood-frequency study. Drainage basin above station contains many reservoirs with total usable capacity in excess of 27,175,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1844	June	1844	a24.5	350,000	1943	Apr.	18, 1943	18.30	154,000
1881	Apr.	29, 1881	a27.2	370,000	1944	Apr.	19, 1944		
1903	June	2, 1903	a20.5	252,000		June	18, 1944	-	161,000
						June	19, 1944	19.1	-
1922	June	28, 1922	46.6	242,000	1945	June	16, 1945	17.4	152,000
1923	July	8, 1923	48.3	241,000	1946	June	19, 1946	14.70	114,000
1924	June	28, 1924	49.3	221,000	1947	June	16, 1947	20.4	180,000
1925	June	16, 1925	47.7	235,000	1948	Mar.	20, 1948	17.50	158,000
1926	June	23, 1926	43.8	75,000	1949	Mar.	8, 1949	b21.3	170,000
1927	May	18, 1927	49.3	213,000	1950	Apr.	30, 1950	19.0	178,000
	June	30, 1927	49.3	213,000					
					1951	May	3, 1951	19.9	198,000
1928	June	9, 1928	46.4	-					
	June	18, 1928	-	146,000	1952	Apr.	23, 1952	26.82	397,000
1929	June	4, 1929	15.6	196,000	1953	June	28, 1953	17.30	118,000
1930	May	14, 1930	13.2	106,000	1954	June	22, 1954	16.41	104,000
1931	June	23, 1931	12.3	65,600	1955	June	25, 1955	15.7	91,600
1932	June	20, 1932	15.8	156,000	1956	July	3, 1956	13.20	58,600
1933	May	30, 1933	14.2	112,000	1957	June	18, 1957	17.80	126,000
1934	Mar.	6, 1934	12.9	94,700	1958	July	11, 1958	18.75	139,000
1935	June	29, 1935	15.42	116,000	1959	May	31, 1959	18.00	133,000
1936	Mar.	12, 1936	14.10	108,000	1960	Apr.	6, 1960	22.05	175,000
1937	June	28, 1937	14.85	100,000	1961	Sept.	13, 1961	17.53	106,000
1938	July	17, 1938	17.05	124,000	1962	May	30, 1962	19.08	138,000
1939	Apr.	10, 1939	15.85	141,000	1963	June	26, 1963	16.26	89,600
1940	June	10, 1940	12.39	65,600	1964	June	21, 1964	18.63	109,000
1941	June	11, 1941	16.29	115,000	1965	June	30, 1965	20.77	164,000
1942	June	25, 1942	17.15	134,000					

a Present site and datum.

b Backwater from ice.

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8189. Platte River at Ravenwood, Mo.
(Published as "at Conception Junction" prior to 1958)

Location.--Lat 40°20'42", long 94°41'10", in SE¼SE¼ sec.14, T.64 N., R.34 W., on downstream side of left pier of bridge on State Highways 4 and 46, three-quarters of a mile west of Ravenwood, and 1 mile downstream from Honey Creek.

Drainage area.--486 sq mi; 492 sq mi prior to Sept. 30, 1932. Slope.--4.45 ft per mi.

Gage.--Nonrecording prior to Sept. 30, 1932, recorder since Sept. 10, 1958. At site 5 miles downstream and at datum 20 ft lower, Aug. 6, 1928, to Sept. 30, 1932. At site 4 miles downstream at different datum prior to Aug. 6, 1928. Altitude of gage is 960 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 9,600 cfs.

Bankfull stage.--18 ft.

Remarks.--Channel improvement made in vicinity of gage during 1923-24. Channel has been improved for some distance upstream and downstream from gage. Only annual peaks are shown prior to 1958. Subsequent to 1958, base for partial-duration series is 4,000 cfs. Records for sites "at Ravenwood" and "at Conception Junction" considered equivalent for flood frequency study.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	July 10, 1922	20.62	8,730	1961	Feb. 18, 1961	14.25	7,460
1923	Nov. 13, 1922	17.45	3,900		Mar. 13, 1961	13.75	7,100
					Mar. 27, 1961	14.53	7,730
1929	July 6, 1929	21.70	12,200		Apr. 12, 1961	11.20	4,760
1930	June 16, 1930	14.02	4,200		Sept. 13, 1961	14.60	7,820
1931	Sept. 25, 1931	10.42	1,810		Sept. 30, 1961	13.00	6,380
1932	Nov. 24, 1931	17.12	10,200	1962	Oct. 11, 1961	13.93	7,190
					Nov. 3, 1961	10.72	4,340
1959	Mar. 26, 1959	13.22	6,350		Nov. 16, 1961	14.85	8,000
	Apr. 20, 1959	12.58	5,810		Feb. 5, 1962	-	4,000
	May 5, 1959	11.05	4,370		Mar. 20, 1962	-	4,000
	May 31, 1959	17.78	10,500		May 29, 1962	13.26	6,650
	July 1, 1959	14.10	7,160	1963	Mar. 4, 1963	10.80	4,420
	Sept. 26, 1959	15.37	8,330	1964	June 14, 1964	12.95	6,380
					June 22, 1964	17.45	10,400
1960	Jan. 13, 1960	16.95	9,770		Sept. 6, 1964	11.45	4,940
	Mar. 29, 1960	18.40	11,000	1965	Mar. 17, 1965	13.70	7,010
	June 5, 1960	12.28	5,540		Apr. 8, 1965	10.30	4,020
	July 1, 1960	14.95	7,970		June 29, 1965	10.47	4,180
	Aug. 26, 1960	13.30	6,170		July 2, 1965	17.35	10,400
	Aug. 29, 1960	14.09	6,800		Sept. 21, 1965	16.50	9,530
	Sept. 24, 1960	13.14	6,080				

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8195. One Hundred and Two River near Maryville, Mo.
(Published as "at Maryville" prior to 1935)

Location--Lat 40°23'15", long 94°49'35", in SE¼SW¼ sec.34, T.65 N., R.35 W., on right bank in front of steel-pier of county highway bridge 2½ miles northeast of Maryville and 3½ miles downstream from Norway Creek.

Drainage area--500 sq mi, approximately; 515 sq mi prior to June 20, 1934. Slope--5.72 ft per mi.

Gage--Nonrecording prior to Sept. 15, 1958; recording gage thereafter. At site 3 miles downstream at datum 5.68 ft lower than present datum prior to June 20, 1934. Datum of gage is 969.90 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--19 ft.

Remarks--Channel improvements made prior to establishment of station. Base for partial-duration series, 3,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Sept. 16, 1926	21.2	a14,500	1951	Feb. 26, 1951	13.72	4,090
					Mar. 28, 1951	13.55	3,630
1933	Aug. 22, 1933	8.20	2,920		Apr. 25, 1951	14.70	4,270
					May 1, 1951	19.70	10,500
1934	May 14, 1934	3.60	500		May 10, 1951	16.10	5,230
					May 26, 1951	18.70	8,330
1935	June 1, 1935	19.60	10,300		June 3, 1951	14.50	4,150
	June 18, 1935	15.45	4,470		June 26, 1951	13.40	3,520
					July 6, 1951	20.10	11,600
1936	Feb. 26, 1936	b17.95	-		Aug. 26, 1951	14.10	3,910
	Sept. 5, 1936	17.55	6,330				
				1952	Nov. 12, 1951	17.30	6,300
1937	Mar. 4, 1937	15.50	4,530		Mar. 13, 1952	13.82	3,740
	July 19, 1937	14.20	3,840		Apr. 22, 1952	13.38	3,520
					May 23, 1952	16.54	5,560
1938	June 1, 1938	16.1	4,900		June 21, 1952	16.80	5,820
1939	Mar. 13, 1939	20.4	12,600	1953	June 9, 1953	12.20	2,900
	June 21, 1939	16.4	5,110				
	July 4, 1939	19.6	10,300	1954	June 1, 1954	12.60	3,100
1940	June 10, 1941	20.51	11,800	1955	Feb. 19, 1955	15.86	5,080
	Sept. 15, 1941	17.10	5,170				
				1956	July 8, 1956	12.20	2,840
1942	Oct. 7, 1941	14.60	3,540				
	Oct. 9, 1941	16.80	4,910	1957	May 14, 1957	13.80	3,740
	Oct. 22, 1941	18.0	6,180				
	Nov. 2, 1941	19.2	8,280	1958	May 4, 1958	14.48	4,150
	Mar. 6, 1942	16.0	4,340		May 17, 1958	15.23	4,570
	Mar. 26, 1942	14.9	3,690		July 4, 1958	14.13	3,910
	May 5, 1942	16.4	4,610		July 19, 1958	19.31	8,510
	June 20, 1942	17.4	5,470		July 31, 1958	18.30	6,870
	Aug. 26, 1942	15.40	3,980				
				1959	Mar. 26, 1959	15.78	4,930
1943	May 16, 1943	17.9	6,050		Apr. 20, 1959	15.5	4,750
	June 5, 1943	19.4	8,730		May 5, 1959	14.4	4,090
	June 12, 1943	20.02	10,300		May 11, 1959	14.58	4,210
	June 16, 1943	17.2	5,270		May 31, 1959	18.85	7,570
	Aug. 3, 1943	18.5	6,930		July 1, 1959	19.0	7,930
					Sept. 26, 1959	17.7	6,280
1944	Apr. 23, 1944	18.9	7,680				
	May 2, 1944	20.2	10,900	1960	Jan. 13, 1960	20.8	14,100
					Mar. 29, 1960	20.18	12,700
1945	Mar. 15, 1945	16.6	4,750		May 16, 1960	14.85	4,540
	Apr. 11, 1945	14.4	3,510		June 5, 1960	17.1	6,470
	Apr. 16, 1945	18.94	7,680		July 1, 1960	19.53	10,000
	May 14, 1945	19.1	8,080		Aug. 7, 1960	14.48	3,680
					Aug. 18, 1960	14.55	4,210
1946	Mar. 26, 1946	17.9	6,180		Aug. 26, 1960	16.73	5,730
	May 4, 1946	14.35	3,510		Aug. 29, 1960	19.63	10,200
					Sept. 24, 1960	13.84	3,740
1947	Apr. 11, 1947	19.3	8,480				
	June 6, 1947	20.70	12,400	1961	Feb. 18, 1961	17.60	6,150
	June 14, 1947	21.2	14,200		Mar. 13, 1961	19.15	8,450
	June 18, 1947	15.8	4,220		Mar. 28, 1961	19.10	8,260
	June 23, 1947	19.9	10,000		Apr. 12, 1961	17.70	6,250
					Sept. 13, 1961	17.30	5,890
1948	Mar. 19, 1948	18.1	6,330		Sept. 30, 1961	16.90	5,590
1949	Feb. 24, 1949	16.60	4,750	1962	Oct. 10, 1961	15.83	4,850
	June 2, 1949	20.07	10,600		Oct. 13, 1961	13.56	3,650
					Nov. 3, 1961	13.35	3,550
1950	May 10, 1950	18.56	7,080		Nov. 16, 1961	19.36	7,570

PLATTE RIVER BASIN (IOWA-MISSOURI)

Peak stages and discharges of One Hundred and Two River near Maryville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Feb. 5, 1962	15.20	4,400	1964	May 9, 1964	16.32	5,230
	Feb. 15, 1962	16.47	5,150		May 26, 1964	17.15	5,810
	Mar. 12, 1962	18.46	6,470		July 21, 1964	19.94	10,000
	Mar. 20, 1962	15.10	4,350		Sept. 7, 1964	19.05	8,080
	May 29, 1962	19.80	8,430	1965	Mar. 17, 1965	17.60	6,060
	July 22, 1962	16.08	4,910		June 5, 1965	18.60	7,390
1963	Mar. 4, 1963	14.00	3,800		June 9, 1965	18.35	7,110
	Apr. 30, 1963	19.10	7,120		June 29, 1965	14.72	4,270
	May 15, 1963	16.40	5,090		July 2, 1965	20.90	13,600
					Sept. 21, 1965	18.96	8,080

a Annual peak only.

b Backwater from ice.

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8200. White Cloud Creek near Maryville, Mo.

Location.--Lat 40°23'22", long 94°54'33", in NW¼NW¼ sec.1, T.64 N., R.36 W., on downstream side of left pier of bridge on U. S. Highway 71, 4 miles upstream from Big Slough and 4½ miles northwest of Maryville.

Drainage area.--6.06 sq mi. Slope.--19.5 ft per mi.

Gage.--Recording. Altitude of gage is 1,070 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs and by indirect measurements at 2,250 and 4,100 cfs.

Bankfull stage.--11 ft.

Remarks.--Base for partial-duration series, 150 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 1, 1949	13.41	4,100	1955	Feb. 18, 1955	6.76	198
	June 21, 1949	8.13	328		Feb. 26, 1955	6.90	209
	June 24, 1949	6.48	164		Mar. 1, 1955	6.40	161
	June 27, 1949	8.76	422		Apr. 13, 1955	10.27	900
	July 12, 1949	8.03	314	1956	July 7, 1956	8.30	395
1950	May 9, 1950	6.95	196	1957	Apr. 3, 1957	6.52	169
	July 17, 1950	8.15	328				
	Aug. 12, 1950	6.62	170	1958	May 3, 1958	8.97	510
	Aug. 15, 1950	7.29	227		May 4, 1958	9.29	580
	Aug. 28, 1950	6.65	174		May 16, 1958	11.58	1,660
1951	Feb. 20, 1951	8.80	431		July 15, 1958	8.14	372
	Mar. 28, 1951	7.51	248	1959	July 19, 1958	12.25	2,300
	Apr. 25, 1951	9.00	470		Mar. 26, 1959	8.55	438
	Apr. 30, 1951	10.54	920		Apr. 19, 1959	8.29	395
	June 15, 1951	7.38	237		May 5, 1959	6.73	193
	June 19, 1951	8.62	396		May 10, 1959	6.75	193
	June 21, 1951	8.89	450		May 30, 1959	11.32	1,430
	June 22, 1951	8.72	413		May 31, 1959	8.26	388
	June 26, 1951	8.36	357		June 30, 1959	7.58	295
	July 6, 1951	8.05	314		July 31, 1959	8.26	388
	July 22, 1951	9.13	502		Aug. 5, 1959	9.63	675
	Aug. 15, 1951	9.27	548		Sept. 23, 1959	9.54	645
	Aug. 24, 1951	7.88	301		Sept. 26, 1959	10.93	1,200
	Aug. 25, 1951	8.71	431	1960	May 16, 1960	11.45	1,540
	Sept. 9, 1951	7.98	321				
1952	Nov. 12, 1951	10.78	1,020		Sept. 12, 1961	11.35	1,460
	Apr. 21, 1952	8.15	335	1962	May 28, 1962	10.19	860
	May 22, 1952	9.85	695				
	June 21, 1952	11.56	1,610		May 15, 1963	5.38	102
	June 22, 1952	7.37	242	1964	June 22, 1964	10.20	860
1953	Apr. 30, 1953	5.45	107				
1954	May 31, 1954	7.33	256	1965	July 2, 1965	11.70	1,750
	Apr. 26, 1954	6.48	169				

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8203. Big Slough near Wilcox, Mo.

Location.--Lat 40°23'23", long 94°55'32", on south line of SW¼ sec.35, T.65 N., R.36 W., at culvert on U. S. Highway 71, 3 miles southeast of Wilcox.

Drainage area.--1.30 sq mi. Slope.--35.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 125 cfs and by indirect measurements at 462, 614 and 1,040 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	--	2.37	280				
1951	Apr. 30, 1951	3.74	478				
1952	June 21, 1952	5.40	705				
1953	Apr. 30, 1953	2.98	378				
1954	May 31, 1954	2.78	353				
1955	--	(a)	50				
1956	July, 3, 1956	1.78	97				
1957	--	(a)	50				
1958	July 19, 1958	3.62	462				
1959	Sept. 26, 1959	4.52	585				
1960	May 16, 1960	4.74	614				
1961	Sept. 12, 1961	4.58	593				
1962	May 28, 1962	3.54	450				
1963	--	--	(b)				
1964	cJune 17, 1964	6.43	1,040				
1965	July 2, 1965	4.05	460				

a a Stage did not reach gage during year.

b Less than 50 cfs

c Revised

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8205. Platte River near Agency, Mo.
(Published as "at Agency" prior to 1932)

Location.--Lat 39°41'20", long 94°42'15", in NE¼NW¼ sec.10, T.56 N., R.34 W., near center of left span on upstream side of bridge on U. S. Highway 169, 1½ miles downstream from Third Fork and 3½ miles northeast of Agency.

Drainage area.--1,760 sq mi, approximately; prior to May 13, 1932, 1,790 sq mi, approximately. Slope.--3.76 ft per mi.

Gage.--Nonrecording. At site 4 miles downstream at different datum prior to May 13, 1932. Datum of gage is 807.38 ft above mean sea level, datum of 1929.

Stage-discharge relation.---Defined by current-meter measurements; slope is a factor at extremely high stages.

Bankfull stage.--20 ft.

Remarks.--Channel improvement made in vicinity of station during 1921 and 1930. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	June 27, 1924	20.38	11,800	1943	May 17, 1943	18.50	10,900
1925	June 4, 1925	22.60	15,200		June 16, 1943	23.53	24,800
1926	Oct. 5, 1925	16.25	7,600		Aug. 4, 1943	15.00	7,100
	Sept. 10, 1926	20.60	12,000	1944	Apr. 23, 1944	22.60	20,200
	Sept. 18, 1926	26.83	22,600		May 5, 1944	24.4	38,300
1927	Oct. 7, 1926	22.22	14,500		May 24, 1944	14.90	7,010
	Apr. 16, 1927	17.25	8,300		June 9, 1944	17.00	9,050
	Apr. 21, 1927	19.90	11,100		Aug. 5, 1944	14.90	7,010
1928	June 10, 1928	19.30	10,300	1945	Apr. 17, 1945	22.50	19,800
	June 19, 1928	20.15	11,500		May 17, 1945	22.88	21,300
	July 26, 1928	20.80	12,300		June 17, 1945	22.60	20,200
	Sept. 14, 1928	22.67	15,300	1946	Jan. 6, 1946	21.5	17,100
1929	Nov. 4, 1928	19.65	10,600		Mar. 17, 1946	16.60	9,280
	Nov. 18, 1928	22.70	15,600		Mar. 27, 1946	16.40	9,030
	Mar. 2, 1929	17.25	8,300		June 20, 1946	15.20	7,620
	Mar. 7, 1929	18.45	9,320	1947	Apr. 5, 1947	18.60	12,100
	Mar. 16, 1929	20.50	11,900		Apr. 12, 1947	18.80	12,400
	Apr. 16, 1929	15.40	7,100		May 29, 1947	15.90	8,430
	Apr. 22, 1920	25.40	20,100		June 9, 1947	24.80	26,000
	June 3, 1929	26.60	22,300		June 23, 1947	30.46	50,000
	July 8, 1929	25.30	19,900	1948	Mar. 17, 1948	15.7	8,070
1930	June 6, 1930	14.66	6,690		Mar. 20, 1948	17.9	11,000
1933	Sept. 27, 1933	13.36	5,560	1949	Feb. 19, 1949	a17.83	-
1934	May 14, 1934	6.01	1,020		Feb. 26, 1949	a24.7	12,000
1935	May 28, 1935	15.90	7,800		June 4, 1949	19.25	13,000
	June 4, 1935	23.10	21,800	1950	July 12, 1949	17.80	10,800
	June 20, 1935	19.75	13,500		May 11, 1950	17.35	10,200
1936	Mar. 5, 1936	13.54	6,150		Aug. 15, 1950	19.2	13,000
1937	Feb. 13, 1937	a19.60	b7,120	1951	Mar. 3, 1951	14.75	7,100
	Mar. 6, 1937	17.90	11,400		Mar. 29, 1951	15.33	7,520
	July 13, 1937	15.10	8,150		Apr. 26, 1951	15.45	7,740
1938	June 2, 1938	12.13	6,380		May 3, 1951	23.50	18,800
1939	Mar. 15, 1939	16.76	9,010		May 12, 1951	17.80	9,430
	June 23, 1939	16.05	8,100		May 27, 1951	16.33	7,970
1940	Aug. 15, 1940	12.38	4,870		June 16, 1951	18.10	9,760
1941	June 13, 1941	20.97	15,900		June 22, 1951	22.45	16,200
	Sept. 19, 1941	15.15	7,280		June 28, 1951	20.70	13,200
1942	Oct. 9, 1941	16.20	8,250	1952	July 7, 1951	22.97	17,500
	Oct. 24, 1941	15.10	7,190		July 11, 1951	15.76	7,530
	Nov. 3, 1941	18.70	11,200		Aug. 27, 1951	17.10	8,700
	Jan. 20, 1942	15.00	7,100		Sept. 10, 1951	16.65	8,760
	Mar. 7, 1942	15.20	7,280		Nov. 13, 1951	19.17	12,200
	Mar. 27, 1942	16.00	8,050		Mar. 12, 1952	18.90	11,800
	June 22, 1942	19.20	12,100		Apr. 24, 1952	15.70	7,770
	June 26, 1942	24.2	28,600		May 24, 1952	16.40	8,540
					June 23, 1952	17.43	9,720
				1953	May 1, 1953	14.74	6,800
				1954	May 3, 1954	15.00	7,070
				1955	Feb. 19, 1955	21.16	11,900

PLATTE RIVER BASIN (IOWA-MISSOURI)

Peak stages and discharges of Platte River near Agency, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 4, 1955	16.0	8,100	1961	Mar. 14, 1961	22.95	17,900
	Apr. 14, 1955	15.85	7,880		Mar. 28, 1961	21.36	13,700
	June 25, 1955	16.40	8,540		Apr. 13, 1961	19.53	10,400
					Sept. 3, 1961	21.22	13,300
1956	July 3, 1956	13.94	6,050		Sept. 14, 1961	25.50	26,500
1957	Apr. 4, 1957	16.75	8,980	1962	Oct. 1, 1961	17.85	8,400
					Oct. 12, 1961	20.95	12,900
1958	May 5, 1958	20.36	10,600		Nov. 3, 1961	21.35	13,700
	July 16, 1958	22.94	16,700		Nov. 17, 1961	23.30	18,800
	July 20, 1958	19.40	9,170		Feb. 6, 1962	a24.40	10,000
	Aug. 1, 1958	21.13	12,000		Feb. 16, 1962	19.42	10,200
					Mar. 13, 1962	20.75	12,500
1959	Mar. 27, 1959	19.19	9,060		Mar. 21, 1962	20.10	11,200
	Apr. 21, 1959	19.58	9,620		May 20, 1962	17.86	8,500
	May 6, 1959	17.25	7,060		May 30, 1962	23.72	20,000
	May 21, 1959	17.6	7,390				
	June 2, 1959	22.9	16,700	1963	Mar. 5, 1963	18.43	10,100
	July 2, 1959	18.82	8,580		May 16, 1963	20.46	11,900
	Sept. 24, 1959	18.72	8,470				
	Sept. 27, 1959	20.47	11,200	1964	May 10, 1964	17.20	7,800
					June 15, 1964	18.85	9,480
1960	Oct. 6, 1959	19.0	8,800		June 21, 1964	a26.3	32,100
	Jan. 16, 1960	23.3	17,900		Sept. 7, 1964	19.87	10,500
	Mar. 31, 1960	26.09	29,100				
	June 5, 1960	18.1	8,930	1965	Mar. 18, 1965	22.70	17,000
	July 2, 1960	21.8	14,100		Apr. 7, 1965	16.60	7,240
	Aug. 19, 1960	17.9	8,500		Apr. 9, 1965	16.50	7,150
	Aug. 27, 1960	16.4	7,060		June 6, 1965	16.70	7,330
	Aug. 30, 1960	19.1	9,830		June 30, 1965	19.94	11,100
	Sept. 25, 1960	18.7	9,370		July 3, 1965	23.40	17,300
1961	Feb. 19, 1961	18.85	9,480		July 20, 1965	35.05	53,000
					Sept. 22, 1965	25.95	21,700

a Backwater from ice.

b Daily discharge.

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8210. Jenkins Branch at Gower, Mo.

Location.--Lat 39°37'29", long 94°36'01", in SW¼NW¼ sec.34, T.56 N., R.33 W., on right bank at upstream side of culvert on U. S. Highway 169, 0.8 mile north of Gower, and 4.4 miles upstream from mouth.

Drainage area.--2.72 sq mi. Slope.--34.0 ft per mi.

Gage.--Recording gage and concrete control. Altitude of gage is 905 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 400 cfs and by indirect measurements at 1,730 and 3,400 cfs.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1951	June 15, 1951	4.02	362	1962	Nov. 2, 1961	6.75	1,020	
	June 19, 1951	3.24	221		Nov. 15, 1961	3.66	237	
	June 21, 1951	5.04	582		June 6, 1962	5.80	744	
	June 22, 1951	4.40	440	1963	Oct. 15, 1962	4.12	330	
	June 26, 1951	3.79	324		May 15, 1963	4.82	486	
	June 27, 1951	3.62	310		1964	Apr. 12, 1964	7.67	1,290
	July 5, 1951	4.78	526	Apr. 20, 1964		6.17	856	
	July 11, 1951	3.29	230	Apr. 26, 1964		4.62	440	
	July 12, 1951	3.39	252	June 21, 1964		10.77	2,420	
	Aug. 8, 1951	3.49	276	June 22, 1964		3.93	297	
	Aug. 15, 1951	3.60	304	June 22, 1964		4.42	396	
	Aug. 28, 1951	3.52	283					
	Sept. 9, 1951	3.75	314					
1952	Sept. 1, 1952	3.00	181	1965	June 29, 1965	4.78	486	
1953	May 5, 1953	2.51	97		July 2, 1965	4.42	396	
					July 19, 1965	5.25	597	
1954	May 31, 1954	3.71	335		July 20, 1965	13.27	3,460	
	June 2, 1954	5.36	666	Sept. 16, 1965	8.06	1,420		
				Sept. 21, 1965	9.38	1,870		
1955	Oct. 3, 1954	3.75	314					
	Oct. 4, 1954	3.82	324					
	Oct. 13, 1954	4.01	362					
	Feb. 18, 1955	3.78	324					
	June 24, 1955	4.55	471					
1956	May 30, 1956	9.03	1,730					
	July 13, 1956	3.46	259					
1957	Apr. 3, 1957	2.22	53					
1958	May 3, 1958	4.70	462					
	June 12, 1958	4.72	462					
	June 14, 1958	3.88	286					
	July 11, 1958	4.33	385					
	July 15, 1958	5.24	597					
	July 17, 1958	4.44	407					
	July 27, 1958	4.42	396					
	July 30, 1958	5.50	662					
1959	Aug. 5, 1959	5.86	772					
	Sept. 22, 1959	6.62	968					
1960	Oct. 4, 1959	4.38	396					
	Oct. 22, 1959	3.55	216					
	Mar. 27, 1960	4.17	341					
	June 21, 1960	4.60	440					
	June 23, 1960	4.72	462					
	June 30, 1960	6.33	884					
	July 10, 1960	4.05	319					
	Aug. 7, 1960	4.47	407					
	Aug. 17, 1960	5.70	716					
1961	Apr. 22, 1961	4.68	462					
	May 5, 1961	3.53	208					
	May 7, 1961	8.75	1,660					
	July 23, 1961	4.31	374					
	July 26, 1961	4.90	510					
	Sept. 13, 1961	4.37	385					
	Sept. 20, 1961	4.50	418					
1962	Oct. 12, 1961	4.33	385					
	Oct. 29, 1961	6.40	912					

PLATTE RIVER BASIN (IOWA-MISSOURI)

6-8211.3 First Creek near Nashua, Mo.

Location.--Lat 39°17'20", long 94°35'05", in NW¼SW¼ sec.26, T.52 N., R.33 W., on right bank just upstream from culvert on farm road, 1 mile south on U. S. Highway 169 from junction of new U. S. Highway 169 and 71 Bypass, approximately 150 ft east on farm road from center line of U. S. Highway 169.

Drainage area.--0.55 sq mi. Slope.--59.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined below 310 cfs by current meter measurements and at 831 cfs by indirect measurement.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet) Discharge (cfs)
1959	May	4, 1959	8.11	23			
1960	Apr.	15, 1960	9.41	64			
1961	May	7, 1961	13.25	310			
1962	Nov.	2, 1961	11.20	160			
1963	Oct.	6, 1962	8.63	35			
1964	Apr.	20, 1964	8.45	30			
1965	July	19, 1965	18.40	831			

MISSOURI RIVER MAIN STEM

6-8930. Missouri River at Kansas City, Mo.

Location.--Lat 39°06'43", long 94°35'16", in sec.32, T.50 N., R.33 W., on downstream side of right pier of Chicago, Burlington Quincy Railroad bridge at Kansas City, 1.4 miles downstream from Kansas River and at mile 366.1.

Drainage area.--489,200 sq mi.

Gage.--Nonrecording Aug. 1, 1928, to May 3, 1931, and May 16, 1947, to Feb. 28, 1948. Recording gage, May 4, 1931, to May 15, 1947, and since Feb. 29, 1948. Datum of gage is 716.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, must be defined by frequent current-meter measurements.

Bankfull stage.--22 ft.

Remarks.--Drainage basin above station contains many reservoirs with total usable capacity in excess of 27,640,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 15, 1844	38.0	625,000	1948	Mar. 21, 1948	21.25	208,000
1903	June 2, 1903	34.95	548,000	1949	Mar. 8, 1949	20.4	195,000
1929	June 5, 1929	23.4	254,000	1950	July 21, 1950	20.70	198,000
1930	May 9, 1930	16.7	149,000	1951	July 14, 1951	36.2	573,000
1931	June 24, 1931	12.0	64,000	1952	Apr. 24, 1952	30.63	400,000
1932	June 21, 1932	20.90	178,000	1953	May 8, 1953 June 29, 1953	- 14.98	128,000 -
1933	May 31, 1933	14.7	109,000	1954	June 23, 1954	16.03	122,000
1934	Mar. 7, 1934	13.45	87,100	1955	June 25, 1955	15.15	111,000
1935	June 6, 1935	23.80	230,000	1956	July 4, 1956	11.55	71,300
1936	Mar. 12, 1936	16.30	117,000	1957	June 19, 1957	17.05	143,000
1937	June 30, 1937	15.55	102,000	1958	July 31, 1958	20.80	193,000
1938	July 19, 1938	19.30	137,000	1959	May 31, 1959	16.74	155,000
1939	Apr. 10, 1939	17.40	135,000	1960	Apr. 4, 1960	22.95	251,000
1940	June 21, 1940	13.25	68,100	1961	Sept. 14, 1961	18.35	178,000
1941	June 13, 1941	24.66	215,000	1962	May 30, 1962	18.30	182,000
1942	June 22, 1942	24.25	206,000	1963	June 26, 1963	12.38	96,600
1943	June 18, 1943	29.1	366,000	1964	June 24, 1964	17.77	158,000
1944	Apr. 24, 1944	27.67	311,000	1965	July 21, 1965	22.80	225,000
1945	June 18, 1945	25.30	242,000				
1946	June 20, 1946	15.75	123,000				
1947	June 25, 1947 June 27, 1947	27.01 -	- 261,000				

BLUE RIVER BASIN

6-8935. Blue River near Kansas City, Mo.

Location.--Lat 38°57'25", long 94°33'32", in SE¼NE¼ sec.28, T.48 N., R.33 W., on downstream side of right pier of bridge on County Highway W, 0.4 mile downstream from Indian Creek and 1.7 miles southeast of Kansas City.

Drainage area.--188 sq mi. Slope.--12.4 ft per mi.

Gage.--Nonrecording prior to July 1, 1939; recording gage thereafter. Datum of gage is 753.73 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--14 ft.

Historical data.--Maximum stage known prior to 1961, about 39 ft Nov. 17, 1928, occurred before construction of present bridge and major changes in channel at gage site.

Remarks.--Base for partial-duration series, 5,800 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 25, 1939	21.52	a8,140	1951	July 6, 1951	21.90	7,740
1940	Apr. 27, 1940	17.66	5,990		July 11, 1951	38.30	31,100
	May 18, 1940	18.20	6,250		Sept. 4, 1951	19.1	6,200
	June 23, 1940	19.58	7,000		Sept. 9, 1951	20.20	6,800
				1952	Mar. 10, 1952	23.00	8,380
1941	Apr. 4, 1941	18.65	6,460	1953	Apr. 30, 1953	9.48	1,760
1942	Oct. 31, 1941	19.15	6,730				
	June 19, 1942	20.10	7,280	1954	Aug. 2, 1954	16.27	4,650
	July 25, 1942	21.2	7,890	1955	Oct. 20, 1954	19.38	6,360
1943	June 10, 1943	17.06	5,650		May 28, 1955	26.33	8,560
1944	Apr. 23, 1944	35.88	26,400	1956	Oct. 5, 1955	13.04	1,270
	May 21, 1944	19.80	7,010	1957	May 16, 1957	20.37	6,710
1945	Mar. 24, 1945	17.89	6,000		June 30, 1957	29.65	14,300
	Apr. 16, 1945	26.3	11,100	1958	July 17, 1958	23.16	9,180
	May 16, 1945	22.40	8,460		July 20, 1958	19.00	6,160
	June 30, 1945	22.90	8,740		July 25, 1958	19.70	6,640
1946	May 10, 1946	21.36	7,890		July 31, 1958	37.80	21,700
1947	Mar. 13, 1947	21.15	7,780		Aug. 16, 1958	21.50	7,900
	Apr. 3, 1947	20.9	7,620	1959	Apr. 27, 1959	17.36	5,120
	Apr. 5, 1947	27.35	12,100				
	Apr. 10, 1947	20.00	7,120	1960	Apr. 16, 1960	21.59	7,980
	June 21, 1947	21.80	8,120		Apr. 30, 1960	21.54	7,900
	June 23, 1947	28.98	14,100	1961	May 6, 1961	26.49	8,200
1948	Mar. 19, 1948	22.32	7,970		July 6, 1961	26.40	7,780
	July 22, 1948	22.26	7,970		Sept. 13, 1961	44.46	41,000
	July 26, 1948	24.88	9,540		Sept. 24, 1961	25.92	7,430
1949	May 21, 1949	20.93	7,180	1962	Nov. 2, 1961	28.19	9,140
	June 6, 1949	23.74	8,800		Nov. 16, 1961	25.38	7,090
	June 7, 1949	19.10	6,200	1963	July 13, 1963	20.05	4,390
1950	Oct. 21, 1949	30.85	16,400	1964	May 26, 1964	25.45	7,090
	July 12, 1950	19.13	6,200		May 28, 1964	26.93	8,130
	Aug. 27, 1950	20.93	7,180	1965	June 5, 1965	30.13	12,100
1951	June 26, 1951	21.20	7,350		Sept. 4, 1965	26.77	9,050
	June 29, 1951	19.80	6,580				

a Annual peak only

LITTLE BLUE RIVER BASIN

6-8940. Little Blue River near Lake City, Mo.

Location.--Lat 39°06'00", long 94°18'00", in SW¼SE¼ sec.35, T.50 N., R.31 W., at downstream side of right pier of upstream bridge on dual State Highway 78, 3 miles southwest of Lake City, and 10½ miles upstream from mouth.

Drainage area.--184 sq mi. Slope.--6.26 ft per mi.

Gage.--Nonrecording prior to July 24, 1957; recording gage thereafter. Datum of gage is 719.15 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--18 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	May 20, 1948	24.97	6,000				
	July 26, 1948	22.6	3,200				
1949	Jan. 16, 1949	19.4	2,060				
	Feb. 12, 1949	19.9	2,200				
	Mar. 31, 1949	19.4	2,060				
	May 22, 1949	21.7	2,800				
	July 12, 1949	19.5	2,080				
	Sept. 13, 1949	20.7	2,450				
1950	Oct. 22, 1949	24.7	5,580	1951			
1951	June 30, 1951	19.9	2,200				
	July 6, 1951	19.4	2,060				
	July 11, 1951	26.1	6,400				
	Sept. 4, 1951	21.0	2,560	1952			
1952	Oct. 6, 1951	19.4	2,060				
	Mar. 10, 1952	23.2	3,690	1953	Apr. 30, 1953	19.73	2,140
1954	Mar. 3, 1954	21.60	2,820	1955	May 29, 1955	23.65	4,000
1956	July 2, 1956	11.0	408	1957	July 1, 1957	18.16	1,680
1958	Aug. 1, 1958	24.02	4,350	1959	Apr. 28, 1959	16.27	1,290
1960	May 1, 1960	21.14	2,600	1961			
1961	Mar. 13, 1961	22.08	2,780				
	Apr. 10, 1961	21.28	2,730				
	May 6, 1961	24.30	4,740				
	July 25, 1961	21.98	2,950				
	Sept. 4, 1961	20.36	2,220				
	Sept. 14, 1961	27.94	9,460				
	Sept. 25, 1961	23.62	4,100	1962			
1962	Oct. 31, 1961	21.00	2,460				
	Nov. 3, 1961	24.18	4,640	1963	Oct. 13, 1962	19.50	1,900
1964	May 29, 1964	20.49	2,240	1965			
1965	June 5, 1965	19.92	2,240				
	June 30, 1965	21.51	2,690				
	July 20, 1965	25.03	5,200				
	Sept. 22, 1965	22.95	3,500				

FISHING RIVER BASIN

6-8945. East Fork Fishing River at Excelsior Springs, Mo.

Location.--Lat 39°20'20", long 94°12'45", in SE¼ sec.1, T.52 N., R.30 W., on downstream side of right abutment of Golf Hill Bridge in Excelsior Springs, three-quarters of a mile upstream from Dry Fork Fishing River and 6-3/4 miles upstream from mouth.

Drainage area.--20.0 sq mi. Slope.--21.9 ft per mi.

Gage.--Recording. Datum of gage is 759.46 ft (revised) above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and by indirect measurement at 12,000 cfs.

Historical data.--Flood of June 22, 1947 reached a stage 3.7 ft higher than flood of July 6, 1951 at a point 200 ft upstream.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	June 21, 1951	7.10	1,080	1960	Oct. 4, 1959	6.51	680
	June 28, 1951	9.20	a2,900		Mar. 27, 1960	8.57	1,920
	July 6, 1951	15.3	a12,000		Apr. 29, 1960	7.30	985
	July 8, 1951	9.00	1,620		May 6, 1960	6.02	520
	July 11, 1951	8.40	1,080		June 21, 1960	6.03	535
	Aug. 9, 1951	10.90	a4,110		June 30, 1960	8.08	1,480
	Aug. 28, 1951	12.00	a5,800	1961	Mar. 26, 1961	8.11	2,100
	Sept. 4, 1951	9.35	a2,180		May 5, 1961	6.05	704
1952	Mar. 10, 1952	6.05	670		May 7, 1961	9.81	3,460
	June 21, 1952	5.80	597		July 23, 1961	6.72	1,000
	Aug. 21, 1952	7.80	1,440		July 25, 1961	6.14	715
1953	Apr. 24, 1953	5.45	500		Aug. 1, 1961	8.10	2,100
	May 5, 1953	6.28	750		Sept. 13, 1961	12.00	5,700
1954	May 2, 1954	6.60	865	1962	Oct. 12, 1961	6.98	992
					Oct. 30, 1961	10.28	3,950
1955	Feb. 18, 1955	6.30	742		Nov. 2, 1961	9.35	3,080
	Mar. 14, 1955	5.90	620		Nov. 15, 1961	7.82	1,800
	May 12, 1955	6.86	965		Feb. 4, 1962	6.66	718
	June 25, 1955	7.87	1,480		Mar. 20, 1962	6.50	640
	Aug. 7, 1955	6.30	760	1963	May 15, 1963	6.35	600
1956	Oct. 6, 1955	6.65	885		May 26, 1963	6.30	570
	July 4, 1956	8.15	1,710		Aug. 1, 1963	6.16	500
	July 13, 1956	10.05	a3,750	1964	Apr. 5, 1964	6.85	905
1957	May 16, 1957	6.10	685		June 11, 1964	8.72	2,780
					June 12, 1964	7.20	1,200
1958	Feb. 27, 1958	6.17	700		June 21, 1964	9.13	2,800
	June 14, 1958	6.34	768	1965	Nov. 15, 1964	7.65	1,540
	July 11, 1958	10.95	a5,000		Jan. 1, 1965	6.25	570
	July 15, 1958	7.95	1,360		Mar. 16, 1965	7.97	1,780
	July 30, 1958	8.70	2,020		June 5, 1965	6.76	850
1959	Oct. 7, 1958	8.40	1,730		July 19, 1965	16.05	10,400
	Oct. 17, 1958	6.05	535		Aug. 16, 1965	9.24	2,080
	July 8, 1959	7.00	860		Aug. 30, 1965	10.05	2,900
					Sept. 13, 1965	9.03	1,860
					Sept. 16, 1965	8.63	1,460
					Sept. 20, 1965	10.92	3,980

a Revised.

CROOKED RIVER BASIN

6-8950. Crooked River near Richmond, Mo.

Location.--Lat 39°20', long 93°59', in NW¼ sec.7, T.52 N., R.27 W., on downstream side of third pier from left end of bridge on State Highway 13, 4 miles north of Richmond, 8½ miles upstream from West Fork Crooked River and 24½ miles upstream from mouth.

Drainage area.--159 sq mi. Slope.--5.17 ft per mi.

Gage.--Nonrecording prior to Dec. 4, 1951, recording and nonrecording thereafter. Datum of gage is 706.34 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--22 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 20, 1948	20.91	2,860	1959	Oct. 8, 1958	19.45	2,000
	June 21, 1948	18.69	1,960		Nov. 18, 1958	23.07	3,840
	Aug. 13, 1948	17.20	1,560	1960	Oct. 4, 1959	17.67	1,530
1949	Feb. 19, 1949	20.7	2,780		Mar. 28, 1960	24.75	5,790
	Mar. 31, 1949	18.1	1,760		Apr. 15, 1960	18.65	1,760
	June 2, 1949	21.8	3,300		Apr. 16, 1960	22.35	3,340
	June 14, 1949	21.7	3,250		Apr. 30, 1960	19.65	2,070
	Sept. 13, 1949	21.34	3,050		July 1, 1960	23.95	4,700
1950	Jan. 1, 1950	15.2	1,110	1961	Mar. 14, 1961	19.32	1,980
	June 22, 1951	19.25	2,140		Mar. 27, 1961	21.30	2,720
1951	June 29, 1951	21.4	3,100		Apr. 10, 1961	17.92	1,580
	July 6, 1951	28.8	27,000		May 6, 1961	20.16	2,640
	July 12, 1951	22.5	3,700		May 8, 1961	21.12	2,640
	Aug. 9, 1951	21.1	2,960		Sept. 14, 1961	26.97	12,200
	Aug. 28, 1951	23.75	4,620	1962	Oct. 30, 1961	21.20	2,680
	Sept. 5, 1951	23.4	4,290		Nov. 3, 1961	24.28	5,050
1952	Mar. 11, 1952	22.28	3,580		Nov. 17, 1961	23.18	3,920
	Aug. 22, 1952	21.26	2,725		Feb. 5, 1962	20.78	2,520
1953	May 6, 1953	21.35	2,760		Mar. 11, 1962	18.85	1,820
	May 2, 1954	18.47	1,800		Mar. 21, 1962	18.70	1,800
1954	Feb. 19, 1955	21.57	2,860	1963	Mar. 16, 1963	21.48	2,980
	May 12, 1955	17.87	1,580		Apr. 5, 1964	18.35	1,840
	June 25, 1955	18.00	1,600	1964	Apr. 21, 1964	17.24	1,610
1955	July 13, 1956	18.84	1,820		June 12, 1964	20.18	2,440
	May 17, 1957	16.23	1,220		June 22, 1964	27.83	15,000
1956	Feb. 28, 1958	18.95	1,880	1965	Jan. 2, 1965	18.34	1,830
	May 4, 1958	20.55	2,440		Mar. 17, 1965	19.00	2,020
	June 15, 1958	19.20	1,940		June 6, 1965	17.11	1,590
	July 12, 1958	24.56	5,470		June 13, 1965	18.90	1,990
	July 16, 1958	23.34	4,000		July 20, 1965	30.7	29,000
	July 31, 1958	19.90	2,180		Aug. 31, 1965	19.35	2,160
1957	Sept. 16, 1965	17.25	1,610		Sept. 21, 1965	26.39	7,700
	Sept. 21, 1965	26.39	7,700				

MISSOURI RIVER MAIN STEM

6-8955. Missouri River at Waverly, Mo.

Location.--Lat 39°12'51", long 93°30'57", in sec.14, T.51 N., R.24 W., on downstream side of second pier from right bank of bridge on U. S. Highway 65 at Waverly and at mile 293.4.

Drainage area.--491,200 sq mi.

Gage.--Nonrecording Mar. 1, 1929, to Apr. 4, 1934, and June 14, 1943, to Sept. 15, 1944; recording gage Apr. 5, 1934, to June 13, 1943, and since Sept. 16, 1944. At datum 5.00 ft lower prior to Jan. 1, 1934. Datum of gage is 646.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, must be defined by frequent current-meter measurements. Relation affected by levee breaks during extreme floods.

Bankfull stage.--18 ft.

Remarks.--Gage heights adjusted to present datum. Only annual peaks are shown.

Peak stages and discharges								
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Discharge (cfs)
1929	June	5, 1929	19.9	263,000	1949	Mar. 8, 1949	-	187,000
						June 30, 1949	20.74	-
1930	May	9, 1930	15.6	146,000	1950	July 21, 1950	21.75	197,000
1931	June	25, 1931	12.4	65,500	1951	July 14, 1951	28.20	-
1932	June	23, 1932	19.00	167,000		July 16, 1951	-	549,000
1933	June	1, 1933	15.4	111,000	1952	Apr. 24, 1952	28.10	-
1934	Mar.	8, 1934	13.6	82,600		Apr. 26, 1952	-	369,000
1935	June	8, 1935	22.02	215,000	1953	May 8, 1953	-	126,000
						June 29, 1953	17.30	-
1936	Mar.	13, 1936	15.20	120,000	1954	June 23, 1954	18.50	119,000
1937	June	30, 1937	14.45	105,000	1955	June 26, 1955	17.10	106,000
1938	July	20, 1938	17.20	137,000	1956	July 5, 1956	14.42	67,500
1939	Apr.	11, 1939	16.65	133,000	1957	June 19, 1957	20.50	142,000
1940	June	21, 1940	12.55	70,800	1958	July 13, 1958	23.10	-
1941	June	14, 1941	20.9	185,000		Aug. 1, 1958	-	184,000
1942	June	27, 1942	21.84	200,000	1959	June 1, 1959	19.60	154,000
1943	June	19, 1943	24.3	310,000	1960	Mar. 31, 1960	-	249,000
						Apr. 4, 1960	25.80	-
1944	Apr.	24, 1944	24.4	347,000	1961	Sept. 14, 1961	23.40	216,000
1945	Apr.	18, 1945	22.4	240,000	1962	May 31, 1962	-	185,000
						June 29, 1962	21.83	-
1946	June	21, 1946	15.7	116,000	1963	June 27, 1963	16.60	98,200
1947	June	26, 1947	25.1	273,000	1964	June 25, 1964	22.71	162,000
1948	Mar.	22, 1948	21.60	215,000	1965	July 22, 1965	26.80	276,000

WAKENDA CREEK BASIN

6-8960. Wakenda Creek at Carrollton, Mo.

Location.--Lat 39°21', long 93°30', in NE¼SE¼ sec.5, T.52 N., R.23 W., on left bank near upstream side of bridge on U. S. Highway 65 in Carrollton, half a mile downstream from Brush Creek and 14 miles upstream from mouth.

Drainage area.--248 sq mi. Slope.--5.27 ft per mi.

Gage.--Nonrecording prior to May 21, 1958; recording gage thereafter. Datum of gage is 641.17 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Affected by backwater when the Missouri River is at extremely high stages.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 20, 1948	22.64	7,000	1958	Oct. 24, 1957	20.05	3,550
	June 23, 1948	20.8	4,190		Dec. 20, 1957	19.30	3,110
1949	Jan. 16, 1949	20.8	4,190		Feb. 28, 1958	20.50	3,950
	Feb. 19, 1949	20.3	3,610		June 15, 1958	19.47	3,230
	May 9, 1949	20.2	3,180		July 12, 1958	19.38	3,170
	May 21, 1949	20.1	3,110		July 20, 1958	20.20	3,710
	June 3, 1949	21.6	4,500		July 31, 1958	19.95	3,550
1950	June 23, 1950	19.7	3,040	1959	Feb. 10, 1959	18.46	2,720
	July 20, 1950	21.65	5,320	1960	Mar. 29, 1960	22.3	6,460
	Aug. 16, 1950	22.26	6,460		Apr. 30, 1960	21.8	5,630
1951	June 22, 1951	21.0	4,450		May 7, 1960	22.08	6,120
	June 27, 1951	20.56	3,950	July 2, 1960	22.6	7,000	
	June 29, 1951	21.52	5,170	1961	Mar. 27, 1961	21.27	4,870
	July 7, 1951	23.4	6,640		May 6, 1961	19.53	3,230
	July 12, 1951	21.5	5,170		May 8, 1961	22.27	6,460
	Aug. 10, 1951	21.1	4,590		Sept. 14, 1961	23.07	6,460
	Aug. 15, 1951	20.32	3,610		Sept. 24, 1961	19.95	3,130
	Aug. 29, 1951	21.2	4,730	1962	Oct. 13, 1961	19.95	3,130
	Sept. 5, 1951	21.2	4,730		Oct. 31, 1961	22.60	5,660
1952	Nov. 12, 1951	20.20	3,500		Nov. 3, 1961	22.25	5,020
	Mar. 11, 1952	21.10	4,590	Nov. 17, 1961	22.24	5,020	
	Aug. 22, 1952	20.90	3,460	Feb. 5, 1962	19.80	3,020	
1953	May 6, 1953	20.2	2,940	Mar. 21, 1962	20.30	3,310	
1954	Mar. 25, 1954	17.9	1,930	1963	May 16, 1963	18.50	2,720
1955	Feb. 19, 1955	20.10	3,400	1964	Apr. 20, 1964	19.86	3,070
	Aug. 7, 1955	22.8	5,000		June 22, 1964	22.88	6,140
1956	Oct. 5, 1956	19.0	2,330	1965	Jan. 2, 1965	20.05	3,130
1957	May 17, 1957	19.6	3,230		Jan. 23, 1965	20.95	3,730
					Mar. 17, 1965	19.80	3,610
					July 21, 1965	22.90	5,500
				Sept. 22, 1965	23.00	6,300	

GRAND RIVER BASIN

6-8961.8. Demoss Branch near Stanberry, Mo.

Location.--Lat 40°13'10", long 94°33'35", in NE¼SE¼ sec.36, T.63 N., R.33 W., on left bank just upstream from culvert on State Highway 4, three-quarters of a mile west of Stanberry.

Drainage area.--0.38 sq mi. Slope.--106 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Aug. 6, 1959 to June 2, 1965.

Stage-discharge relation.--Defined by current-meter measurements below 65.7 cfs and by indirect measurements at 79.2, 157, 248 and 399 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	13.23	12				
1956	June 18, 1956	17.19	248				
1957	Apr. 3, 1957	13.61	30				
1958	July 19, 1958	18.81	399				
1959	Sept. 22, 1959	17.49	275				
1960	June 5, 1960	17.99	320				
1961	Sept. 3, 13, 1961	17.18	246				
1962	Feb. 4, 1962	15.49	138				
1963	July 13, 1963	15.03	110				
1964	June 20, 1964	15.33	125				
1965	July 2, 1965	17.39	274				

GRAND RIVER BASIN

6-8965. Thompson Branch near Albany, Mo.

Location.--Lat 40°12'50", long 94°19'55", in SE¼SE¼ sec.36, T.63 N., R.31 W., at bridge on State Highway 85, 1.8 miles upstream from East Fork Grand River, and 2 miles south of Albany.

Drainage area.--5.58 sq mi. Slope.--30.9 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 550 cfs, by indirect measurements at 147, 622, and 1,640 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Aug. 1, 1956	6.39	456				
1957	Apr. 3, 1957	5.08	148				
1958	May 3, 1958	11.32	1,630				
1959	Sept. 23, 1959	11.6	1,700				
1960	Oct. 6, 1959	8.47	953				
1961	Mar. 5, 1961	9.69	1,250				
1962	May 28, 1962	6.69	528				
1963	May 27, 1963	4.36	160				
1964	Sept. 6, 1964	10.1	1,350				
1965	July 1, 1965	10.70	1,490				

GRAND RIVER BASIN

6-8967. O'Neill Branch at Osborn, Mo.

Location.--Lat 39°45'25", long 94°20'35", in SW¼NE¼ sec.14, T.57 N., R.31 W., on left bank just upstream from culvert under U. S. Highway 38, 1 mile northeast of Osborn, and 5.5 miles northwest of Cameron.

Drainage area.--0.80 sq mi. Slope.--50.9 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage since July 19, 1962.

Stage-discharge relation.--Defined by indirect measurements at 146, 239, 427, and 1,320 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 4, 1954	16.10	239				
1956	Apr. 28, 1956	13.46	60				
1957	Apr. 2, 1957	13.46	60				
	May 16, 1957	13.46	60				
1958	July 30, 1958	24.20	1,320				
1959	May 18, 1959	16.24	250				
1960	June 30, 1960	15.00	160				
1961	May 5, 1961	18.68	520				
1962	May 19, 1962	20.05	720				
1963	Sept. 25, 1963	15.72	240				
1964	June 21, 1964	18.38	520				
1965	July 19, 1965	18.28	510				

GRAND RIVER BASIN

6-8970. East Fork Big Creek near Bethany, Mo.

Location.--Lat 40°17'50", long 94°01'55", in SE¼ sec.34, T.64 N., R.28 W., on right bank 50 ft downstream from bridge on U. S. Highway 69, 2 miles north of Bethany and 4 miles upstream from confluence with West Fork.

Drainage area.--95 sq mi, approximately. Slope.--7.24 ft per mi.

Gage.--Nonrecording prior to June 26, 1934; recording gage thereafter. Datum of gage is 854.74 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,600 cfs and by velocity-area studies.

Historical data.--Maximum stage known, 23.8 ft July 6, 1909.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 6, 1909	23.8	-	1946	Jan. 5, 1946	13.10	4,400
					Mar. 16, 1946	7.50	1,580
1934	June 23, 1934	4.17	590		June 19, 1946	7.90	1,720
					June 30, 1946	16.10	6,770
1935	May 31, 1935	12.04	3,500		Sept. 27, 1946	8.60	1,960
	June 2, 1935	10.25	2,520				
	June 6, 1935	5.80	1,130	1947	Apr. 5, 1947	9.40	2,240
	June 18, 1935	10.40	2,610		June 6, 1947	17.65	8,120
					June 13, 1947	11.00	2,970
1936	Feb. 24, 1936	a9.65	-		June 21, 1947	12.10	3,700
	Feb. 26, 1936	a7.87	860		June 23, 1947	13.80	4,920
	May 23, 1936	5.27	980				
				1948	Mar. 15, 1948	6.60	1,260
1937	Jan. 30, 1937	7.4	1,610		May 6, 1948	9.56	2,310
	Feb. 13, 1937	a12.10	1,460				
	Feb. 18, 1937	a10.55	1,460	1949	Feb. 24, 1949	a10.9	b2,000
	Mar. 2, 1937	a10.20	1,400		Mar. 30, 1949	5.4	859
	Apr. 29, 1937	6.00	1,090				
				1950	Feb. 8, 1950	a7.67	-
1938	Aug. 21, 1938	3.01	210		May 9, 1950	6.34	1,160
					Sept. 20, 1950	6.72	1,300
1939	Mar. 12, 1939	7.70	1,680				
	June 21, 1939	6.00	1,090	1951	Feb. 19, 1951	5.43	859
	June 25, 1939	8.6	1,960		Mar. 3, 1951	6.11	1,090
	Aug. 2, 1939	8.86	2,060		May 1, 1951	10.92	2,920
					June 14, 1951	6.13	1,090
1940	May 8, 1940	8.09	1,780		June 22, 1951	7.90	1,720
	July 30, 1940	6.2	1,120		June 27, 1951	8.85	2,030
					July 6, 1951	5.97	1,060
1941	June 3, 1941	10.6	2,770		July 22, 1951	5.80	991
	June 9, 1941	11.00	2,950				
				1952	Nov. 12, 1951	7.07	1,440
1942	Oct. 9, 1941	6.35	1,190		Mar. 10, 1952	7.65	1,610
	Oct. 31, 1941	7.05	1,400		Mar. 19, 1952	6.60	1,090
	Dec. 23, 1941	5.60	925		Apr. 23, 1952	6.52	1,230
	Feb. 15, 1942	5.55	925		June 21, 1952	11.0	2,970
	Mar. 6, 1942	6.6	1,330		June 22, 1952	9.5	2,280
	Mar. 26, 1942	6.6	1,330				
	June 21, 1942	14.3	5,320	1953	Mar. 31, 1953	5.56	925
	June 26, 1942	15.9	6,600				
				1954	June 1, 1954	6.80	1,330
1943	Oct. 30, 1942	5.70	958				
	Dec. 26, 1942	7.80	1,680	1955	Feb. 20, 1955	7.32	1,500
	Feb. 3, 1943	8.70	2,000		June 25, 1955	9.35	2,240
	May 16, 1943	11.23	3,110		July 10, 1955	7.30	1,500
	May 19, 1943	5.6	925				
	June 5, 1943	10.0	2,470	1956	July 2, 1956	10.97	1,560
	June 8, 1943	6.85	1,330		Aug. 2, 1956	13.48	2,500
	June 10, 1943	6.35	1,190				
	June 11, 1943	9.4	2,240	1957	May 2, 1957	11.18	1,620
	June 16, 1943	11.15	3,070				
				1958	July 15, 1958	11.70	1,780
1944	Mar. 15, 1944	6.2	1,120		July 19, 1958	11.70	1,780
	Apr. 22, 1944	11.38	3,210				
	May 2, 1944	10.30	2,620	1959	Oct. 9, 1958	16.28	3,800
	June 9, 1944	9.2	2,170		Nov. 17, 1958	14.60	3,000
					Mar. 26, 1959	10.08	1,500
1945	Apr. 16, 1945	11.80	3,490		Apr. 20, 1959	13.07	2,660
	May 15, 1945	12.70	4,120		May 30, 1959	16.97	5,100
	June 16, 1945	9.60	2,310		Aug. 5, 1959	15.07	3,660
	July 13, 1945	9.70	2,350		Sept. 23, 1959	12.22	2,280
					Sept. 26, 1959	11.20	1,890

GRAND RIVER BASIN

Peak stages and discharges of East Fork Big Creek near Bethany, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 5, 1959	11.75	2,280	1962	Nov. 2, 1961	13.00	2,630
	Mar. 30, 1960	16.54	4,650		Nov. 16, 1961	13.33	2,750
	May 6, 1960	10.86	1,960		Feb. 5, 1962	10.30	1,760
	June 5, 1960	10.14	1,680		Mar. 12, 1962	10.50	1,820
	June 30, 1960	16.58	4,740		June 11, 1962	15.86	3,880
	July 1, 1960	11.10	2,040				
1961	Feb. 18, 1961	9.70	1,760	1963	Mar. 4, 1963	a14.57	2,100
	Mar. 6, 1961	-	-	1964	June 19, 1964	10.69	1,880
	Apr. 12, 1961	8.95	1,520		Sept. 6, 1964	11.50	1,910
	Sept. 3, 1961	13.30	3,100				
	Sept. 13, 1961	18.78	5,700	1965	Mar. 17, 1965	10.15	1,730
	Sept. 30, 1961	11.17	2,300		Sept. 21, 1965	15.12	3,480

a Backwater from ice.

b Daily discharge.

GRAND RIVER BASIN

6-8972. Simpson Branch near Bethany, Mo.

Location.--Lat 40°15'55", long 93°58'55", in SE¼SW¼ sec.7, T.63 N., R.27 W., on right downstream wingwall of bridge on U. S. Highway 136, 2.3 miles east of Bethany.

Drainage area.--4.72 sq mi. Slope.--27.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 45.2 cfs, and by indirect measurements at 283 and 3,720 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Feb. 19, 1955	6.83	335				
1956	Aug. 1, 1956	14.42	4,500				
1957	May 20, 1957	6.99	283				
1958	July 19, 1958	9.54	1,470				
1959	Sept. 26, 1959	12.48	3,250				
1960	Aug. 29, 1960	13.26	3,720				
1961	Sept. 13, 1961	11.31	2,500				
1962	Nov. 2, 1961	10.76	1,800				
1963	June 27, 1963	10.82	1,800				
1964	June 22, 1964	9.32	1,050				
1965	Sept. 21, 1965	9.68	1,180				

GRAND RIVER BASIN

6-8975. Grand River near Gallatin, Mo.

Location.--Lat 39°55'35", long 93°56'35", in SW¼NW¼ sec.16, T.59 N., R.27 W., on downstream side of left bank pier of bridge on State Highway 6, 100 ft downstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 1 mile northeast of Gallatin, and 6 miles upstream from Honey Creek.

Drainage area.--2,250 sq mi, approximately. Slope.--4.11 ft per mi.

Gage.--Nonrecording prior to Nov. 15, 1937; recording gage thereafter. At site 100 ft upstream prior to Jan. 31, 1922. At site 1,100 ft upstream at datum 0.17 ft higher Jan. 31, 1922, to Nov. 15, 1936. Datum of gage is 712.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--28 ft.

Remarks.--Some channel improvement work done below Honey Creek. Base for partial-duration series, 18,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 8, 1909	40	70,800	1943	May 17, 1943	24.52	21,500
					June 7, 1943	22.82	18,800
1922	July 12, 1922	36.50	51,400		June 12, 1943	26.99	25,800
					June 17, 1943	25.00	22,400
1923	Nov. 15, 1922	29.30	19,100				
1924	June 27, 1924	31.10	22,400	1944	Apr. 24, 1944	31.55	35,700
					May 4, 1944	26.60	25,100
1925	June 4, 1925	30.20	20,800		June 10, 1944	22.89	19,000
1926	Sept. 17, 1926	36.80	53,200	1945	Dec. 5, 1944	21.30	21,100
	Sept. 21, 1926	30.20	20,800		Apr. 18, 1945	28.66	39,200
					May 17, 1945	30.35	43,600
1927	Oct. 5, 1926	33.90	37,100		June 18, 1945	26.05	32,400
	Apr. 21, 1927	32.40	29,600				
	June 4, 1927	28.64	18,000	1946	Jan. 8, 1946	25.76	31,900
					Mar. 18, 1946	21.66	22,000
1928	June 19, 1928	29.79	20,000				
	July 24, 1928	33.00	32,600	1947	Apr. 5, 1947	23.10	25,500
	Sept. 15, 1928	28.74	18,100		Apr. 11, 1947	19.65	18,000
					May 29, 1947	19.74	18,200
1929	Nov. 4, 1928	31.40	24,900		June 8, 1947	33.30	62,500
	Nov. 19, 1928	35.50	45,400		June 15, 1947	24.24	28,200
	Mar. 8, 1929	28.30	18,100		June 20, 1947	23.50	26,500
	Apr. 22, 1929	33.40	34,600		June 24, 1947	34.55	69,100
	June 2, 1929	37.38	56,800				
	July 8, 1929	34.02	37,600	1948	Mar. 20, 1948	18.52	16,000
1930	June 6, 1930	17.00	6,800	1949	Feb. 25, 1949	20.3	19,400
1931	Sept. 26, 1931	23.95	12,800	1950	May 10, 1950	16.78	13,600
1932	Nov. 16, 1931	29.98	21,100	1951	May 3, 1951	23.7	27,000
	Nov. 19, 1931	29.16	19,600		May 11, 1951	20.15	19,400
	Nov. 25, 1931	33.16	33,600		June 23, 1951	20.3	19,600
	Jan. 3, 1932	31.36	24,900		June 28, 1951	19.9	18,900
					July 8, 1951	27.50	38,100
1933	Aug. 22, 1933	23.96	16,600				
				1952	Mar. 11, 1952	21.32	21,500
1934	Apr. 4, 1934	14.25	6,420				
				1953	Apr. 1, 1953	15.83	13,000
1935	May 29, 1935	25.98	19,300				
	June 4, 1935	33.60	40,100	1954	May 3, 1954	17.26	15,200
1936	Feb. 26, 1936	23.75	16,400	1955	Feb. 20, 1955	17.35	15,600
1937	Mar. 5, 1937	22.75	15,700	1956	July 3, 1956	15.63	11,900
1938	June 1, 1938	11.72	5,480	1957	Apr. 4, 1957	17.22	14,300
1939	June 22, 1939	22.67	18,800	1958	May 5, 1958	20.40	20,700
					July 19, 1958	23.52	27,100
1940	May 8, 1940	16.2	10,900		July 21, 1958	23.52	27,100
					July 31, 1958	21.20	21,300
1941	June 11, 1941	27.45	26,300				
				1959	Nov. 19, 1958	19.75	18,700
1942	Nov. 2, 1941	22.82	19,100		Mar. 27, 1959	21.4	21,700
	Mar. 27, 1942	23.49	20,200		Apr. 21, 1959	22.15	23,500
	June 23, 1942	31.0	34,200		June 2, 1959	24.32	28,200
	June 26, 1942	26.35	24,500		Sept. 24, 1959	20.80	20,500
					Sept. 28, 1959	22.20	23,500

GRAND RIVER BASIN

Peak stages and discharges of Grand River near Gallatin, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 7, 1959	22.05	23,000	1962	Feb. 5, 1962	20.70	22,000
	Jan. 14, 1960	20.60	20,100		Mar. 12, 1962	21.60	23,800
	Mar. 31, 1960	30.45	49,300		May 30, 1962	20.35	20,400
	June 6, 1960	21.55	22,900				
	July 2, 1960	24.15	28,600	1963	Mar. 5, 1963	20.15	22,200
1961	Mar. 14, 1961	21.50	22,600	1964	June 15, 1964	18.84	19,600
	Mar. 27, 1961	21.30	22,200		June 24, 1964	21.84	25,600
	Apr. 12, 1961	20.70	21,000		Sept. 7, 1964	19.99	21,800
	Sept. 4, 1961	20.10	19,800				
	Sept. 15, 1961	29.45	45,200	1965	Mar. 18, 1965	22.05	26,000
1962	Nov. 4, 1961	23.30	27,300		July 2, 1965	22.08	26,200
	Nov. 18, 1961	24.25	29,200		July 21, 1965	19.05	20,000
					Sept. 23, 1965	27.05	38,000

a Determination by Corps of Engineers; annual peak only.

GRAND RIVER BASIN

6-8977. Grand River tributary near Utica, Mo.

Location.--Lat 39°44'22", long 93°38'18", in SW¼NE¼ sec.19, T.57 N., R.24 W., on left bank just upstream from culvert under U. S. Highway 36, ¼-mile west of Utica, and about 6 miles west of Chillicothe.

Drainage area.--1.44 sq mi. Slope.--120 ft per mi.

Gage.--Crest-stage gage; supplemental roving recorder installed May 18, 1966.

Stage-discharge relation.--Defined at 997, 818, 405, and 311 cfs by indirect measurements.

Remarks.--Only annual peaks are shown. Gage removed March 1959. Reinstalled Nov. 6, 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 30, 1958	16.28	997				
1960	June 30, 1960	8.87	a				
1961	June 7, 1961	10.74	a				
1962	Nov. 16, 1961	9.26	a				
1963	May 15, 1963	10.31	405				
1964	Sept. 6, 1964	11.25	a				
1965	Sept. 20, 1965	12.67	a				

a Discharge not determined.

GRAND RIVER BASIN

6-8981. Thompson River at Mount Moriah, Mo.

Location.--Lat 40°20'10", long 93°46'05", on line between SE $\frac{1}{4}$ sec.13 and NE $\frac{1}{4}$ sec.24, T.64 N., R.26 W., on downstream side of right pier of bridge on U. S. Highway 136, 0.7 mile upstream from Panther Creek, and 1 $\frac{1}{2}$ miles northeast of Mount Moriah.

Drainage area.--891 sq mi. Slope.--3.69 ft per mi.

Gage.--Recording. Datum of gage is 784 ft above mean sea level, datum of 1929 (from data furnished by Missouri Highway Commission).

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs.

Remarks.--Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 6, 1961	12.55	14,200	1962	Nov. 2, 1961	14.50	16,200
	Mar. 13, 1961	9.78	8,870		Nov. 16, 1961	12.80	12,900
	Sept. 13, 1961	17.8	22,700		Mar. 12, 1962	11.00	9,700
	Sept. 30, 1961	12.3	12,000		June 11, 1962	21.10	30,200
1963	Mar. 4, 1963	10.12	8,510	1964	June 22, 1964	13.14	10,700
	Apr. 30, 1963	10.02	8,000	1965	Mar. 17, 1965	11.57	11,500
	June 2, 1963	10.10	8,170		Apr. 8, 1965	10.42	8,680
1965	Mar. 17, 1965	12.17	11,900		Apr. 10, 1965	12.17	11,900
		10.90	9,530		May 8, 1965	10.90	9,530
		16.45	19,100		Sept. 21, 1965	16.45	19,100

GRAND RIVER BASIN

6-8985. Weldon River near Mercer, Mo.

Location--Lat 40°33', long 93°36', in SW¼ sec.3, T.66 N., R.24 W., at county highway bridge, 4½ miles northwest of Mercer and 5 miles upstream from Little River.

Drainage area--246 sq mi. Slope--7.54 ft per mi.

Gage--Nonrecording; crest-stage gage since 1961. Datum of gage is 850.96 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 14,000 cfs.

Bankfull stage--22 ft.

Historical data--Flood of Mar. 12, 1939, was the highest stage during the period 1922-39, from information by local resident.

Remarks--Channel improvement work done in 1922. Base for partial-duration series, 4,300 cfs. Only annual peaks are shown subsequent to 1960.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 12, 1939	21.6	16,000	1950	May 9, 1950	11.59	4,820
					June 15, 1950	13.9	6,990
1940	May 7, 1940	15.7	8,460		June 19, 1950	22.16	21,000
	July 27, 1940	20.9	15,200				
	July 30, 1940	15.9	8,680	1951	Apr. 6, 1951	10.25	4,520
1941	June 9, 1941	9.68	2,350		May 1, 1951	12.36	6,940
					May 10, 1951	11.20	5,620
1942	Oct. 31, 1941	13.0	5,500		June 21, 1951	10.4	4,740
	June 20, 1942	23.81	19,400		June 26, 1951	11.6	6,060
	June 26, 1942	18.8	11,200		July 16, 1951	11.0	5,400
					July 22, 1951	14.0	8,800
1943	Dec. 26, 1942	13.7	6,240	1952	Mar. 12, 1952	10.0	4,300
	Feb. 3, 1943	12.5	5,000		May 23, 1952	10.0	4,300
	May 15, 1943	20.7	14,900		June 21, 1952	12.0	6,500
	May 19, 1943	14.6	7,210				
	June 6, 1943	15.6	8,340	1953	Mar. 30, 1953	13.2	7,940
	June 11, 1943	16.59	9,520				
	June 16, 1943	12.2	4,700	1954	June 11, 1954	10.4	4,580
1944	Apr. 23, 1944	16.8	9,760	1955	July 9, 1955	10.4	4,580
	May 2, 1944	17.7	10,900				
	June 8, 1944	14.0	6,550	1956	Aug. 2, 1956	11.70	5,040
	Sept. 21, 1944	13.27	5,820				
				1957	Apr. 3, 1957	12.43	5,880
1945	Mar. 15, 1945	13.14	5,600				
	Mar. 25, 1945	15.85	8,570	1958	July 27, 1958	12.0	5,050
	Apr. 16, 1945	21.30	15,700		July 30, 1958	17.0	11,200
	May 14, 1945	22.0	16,700				
	May 16, 1945	12.2	4,700	1959	Nov. 17, 1958	12.28	5,380
	June 15, 1945	12.5	5,000		Mar. 26, 1959	14.17	7,490
1946	Jan. 5, 1946	22.2	19,700		Apr. 20, 1959	17.0	11,200
	June 18, 1946	19.3	14,800		Apr. 28, 1959	12.40	4,840
	Aug. 24, 1946	16.0	9,700		May 5, 1959	12.50	4,740
					May 11, 1959	12.0	5,100
1947	Mar. 13, 1947	13.2	6,220		May 21, 1959	19.27	14,800
	Apr. 5, 1947	14.40	7,580		May 29, 1959	17.05	11,200
	Apr. 20, 1947	12.05	4,920		Aug. 6, 1959	28.4	50,000
	June 5, 1947	25.71	28,000		Sept. 26, 1959	14.0	7,250
	June 13, 1947	16.8	10,900	1961	Sept. 13, 1961	20.8	19,300
	June 21, 1947	23.2	21,700				
1948	Feb. 27, 1948	15.11	8,580	1962	June 11, 1962	20.42	18,600
	Mar. 19, 1948	11.27	4,320	1963	Mar. 4, 1963	12.96	7,700
1949	Feb. 18, 1949	b10.5	-	1964	Sept. 6, 1964	17.16	13,600
	Feb. 24, 1949	b16.5	-				
	Sept. 12, 1949	18.74	13,700	1965	Sept. 21, 1965	19.40	17,000

a Annual peak only.

b Backwater from ice.

GRAND RIVER BASIN

6-8990. Weldon River at Mill Grove, Mo.

Location.--Lat 40°18', long 93°36', in SE¼SE¼ sec.28, T.64 N., R.24 W., on left bank at downstream side of county highway bridge in Mill Grove, 8½ miles upstream from West Muddy Creek.

Drainage area.--494 sq mi. Slope.--5.05 ft per mi.

Gage.--Nonrecording prior to Dec. 9, 1959, recording gage thereafter. Datum of gage is 786.03 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 24,000 cfs.

Bankfull stage.--16 ft.

Historical data.--Maximum stage known prior to that of Aug. 7, 1959, about 23.9 ft in July 1909.

Remarks.--Channel improvements made prior to establishment of gaging station and additional work in vicinity of station done in September 1945. Base for partial-duration series, 6,100 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	23.9	a18,000	1948	Feb. 28, 1948	15.7	7,600
1930	Oct. 29, 1929	13.08	2,910	1949	Feb. 24, 1949	14.56	6,910
1931	Sept. 26, 1931	13.94	3,320		Sept. 12, 1949	14.46	8,560
1932	Nov. 24, 1931	19.70	11,200	1950	Feb. 8, 1950	13.0	6,930
	Jan. 1, 1932	18.58	8,020		June 15, 1950	13.7	7,210
	Aug. 2, 1932	20.1	12,400		June 19, 1950	18.70	22,200
	Aug. 18, 1932	19.32	10,000	1951	Feb. 20, 1951	11.53	8,360
1933	Sept. 27, 1933	17.08	5,400		Mar. 3, 1951	9.95	6,350
1934	Apr. 4, 1934	11.73	2,280		Apr. 30, 1951	13.00	10,900
1935	May 24, 1935	19.35	10,300		May 10, 1951	13.17	11,300
	June 3, 1935	20.5	13,200		June 21, 1951	12.30	9,710
	June 18, 1935	20.25	12,400		June 24, 1951	11.28	8,050
1936	Feb. 26, 1936	b15.06	2,900		June 26, 1951	10.40	6,830
1937	Feb. 20, 1937	16.40	5,540		July 22, 1951	13.64	12,000
1938	Aug. 16, 1938	10.50	2,380	1952	Mar. 10, 1952	10.02	6,350
1939	Mar. 12, 1939	20.75	14,000		Mar. 13, 1952	9.90	6,240
1940	May 8, 1940	17.27	7,300		June 21, 1952	11.35	8,200
	July 31, 1940	16.32	6,240	1953	Mar. 30, 1953	11.5	8,360
1941	June 9, 1941	16.80	6,740	1954	Apr. 27, 1954	11.2	7,900
1942	Nov. 2, 1941	18.00	8,750	1955	Oct. 5, 1954	8.2	4,580
	June 21, 1942	22.0	18,000	1956	Aug. 2, 1956	12.51	8,700
	June 26, 1942	20.50	14,100	1957	Apr. 3, 1957	12.00	7,950
1943	Dec. 27, 1942	17.50	7,880		May 21, 1957	11.00	6,650
	May 16, 1943	21.8	17,400	1958	July 15, 1958	10.95	6,650
	June 7, 1943	18.05	8,750		July 30, 1958	12.8	9,180
	June 12, 1943	18.03	8,750	1959	Oct. 9, 1958	11.03	6,560
1944	Apr. 22, 1944	19.00	10,800		Nov. 18, 1958	12.0	7,700
	May 3, 1944	19.35	11,700		Mar. 26, 1959	14.35	10,700
	June 9, 1944	17.30	7,560		Apr. 20, 1959	16.6	13,900
1945	Mar. 16, 1945	16.40	7,080		Apr. 28, 1959	11.94	7,580
	Mar. 25, 1945	18.02	9,700		May 11, 1959	10.6	6,150
	Apr. 16, 1945	20.20	14,600		May 21, 1959	15.22	11,700
	May 15, 1945	20.76	16,200		May 29, 1959	14.3	10,500
	June 16, 1945	18.25	10,100		Aug. 7, 1959	26.02	46,000
1946	Jan. 6, 1946	21.6	23,800		Sept. 26, 1959	13.22	9,140
	Mar. 17, 1946	14.80	6,120	1960	Oct. 5, 1959	13.1	9,020
	June 19, 1946	18.60	14,800		Dec. 28, 1959	13.15	9,140
	Aug. 25, 1946	15.00	6,320		Jan. 12, 1960	12.87	8,780
1947	Mar. 13, 1947	14.80	6,120		Jan. 15, 1960	11.05	6,560
	Apr. 5, 1947	18.62	14,800		Mar. 29, 1960	17.95	17,100
	June 5, 1947	22.79	27,600		Apr. 17, 1960	14.17	11,600
	June 13, 1947	17.60	12,000		May 7, 1960	16.22	14,200
	June 22, 1947	20.62	20,700	1961	May 16, 1960	12.70	9,610
					May 20, 1960	10.16	6,480
					July 1, 1960	16.52	14,600
					Oct. 31, 1960	10.20	6,860
					Feb. 18, 1961	13.50	12,000
					Mar. 6, 1961	14.45	13,500

GRAND RIVER BASIN

Peak stages and discharges of Weldon River at Mill Grove, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 13, 1961	12.80	10,800	1963	Mar. 4, 1963	13.70	13,200
	Mar. 27, 1961	10.45	7,120		June 2, 1963	10.35	8,060
	Apr. 12, 1961	10.25	6,860	1964	Apr. 20, 1964	10.34	8,060
	July 16, 1961	13.55	12,100		June 20, 1964	11.90	10,300
	July 21, 1961	11.30	7,840		June 22, 1964	10.15	7,780
	Sept. 14, 1961	19.40	19,900		Sept. 6, 1964	14.80	15,100
	Sept. 30, 1961	16.80	15,100		Sept. 23, 1964	11.95	10,500
1962	Oct. 11, 1961	10.67	7,100	1965	Mar. 17, 1965	13.85	13,400
	Oct. 13, 1961	10.04	6,240		Apr. 5, 1965	10.97	8,900
	Nov. 2, 1961	17.9	20,000		Apr. 8, 1965	12.90	11,900
	Nov. 16, 1961	16.9	17,800		Apr. 11, 1965	13.80	12,400
	Mar. 12, 1962	11.4	8,860		Apr. 25, 1965	10.70	7,910
	May 29, 1962	15.25	14,700		Sept. 21, 1965	17.23	18,400
	June 11, 1962	18.40	21,300				

a Determination by Corps of Engineers; annual peak only.

b Backwater from ice.

GRAND RIVER BASIN

6-8995. Thompson River at Trenton, Mo.
(Published as "near Hickory" prior to 1929)

Location.--Lat 40°04'45", long 93°38'35", in SW¼ sec.18, T.61 N., R.24 W., on right bank at downstream side of bridge on State Highway 6, 1 mile west of Trenton and 1-3/4 miles downstream from Weldon River.

Drainage area.--1,670 sq mi, approximately; prior to Sept. 6, 1923, 1,700 sq mi approximately. Slope.--3.67 ft per mi.

Gage.--Nonrecording June 25, 1921, to Aug. 26, 1923, and Aug. 1, 1928, to Dec. 7, 1959; recording gage thereafter. At two sites 12 miles downstream at different datums 1921-23. At site 1½ miles downstream at datum 3.46 ft lower Sept. 16, 1930, to May 31, 1945. Datum of gage is 721.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 73,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Flood of July 6, 1909, reached a stage of 30.7 ft at present site, from information by local residents.

Remarks.--The channel has been straightened and improved from the Iowa-Missouri line to the Grundy-Livingston county line; work completed in vicinity of gage in 1925. Base for partial-duration series, 15,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 6, 1909	a30.7	b50,000	1945	Mar. 25, 1945	17.00	18,300
					Apr. 16, 1945	20.78	27,600
1922	July 13, 1922	24.05	16,000		May 15, 1945	19.90	25,400
					June 16, 1945	20.2	28,300
1923	Nov. 17, 1922	22.92	12,500				
				1946	Jan. 6, 1946	22.6	45,800
1928	July 23, 1928	22.5	27,000		May 3, 1946	16.10	20,700
					June 19, 1946	14.60	16,100
1929	Nov. 18, 1928	22.31	26,700				
	Feb. 26, 1929	20.95	23,600	1947	Mar. 13, 1947	14.20	15,000
	Apr. 20, 1929	21.40	24,600		Apr. 5, 1947	20.65	35,500
	June 2, 1929	21.55	25,000		June 6, 1947	25.7	95,000
					June 14, 1947	19.70	32,300
1930	Oct. 30, 1929	11.40	5,980		June 18, 1947	16.55	22,300
	June 17, 1930	11.86	5,980		June 23, 1947	22.80	47,500
1931	Sept. 25, 1931	10.94	5,100	1948	Mar. 19, 1948	16.00	20,400
1932	Nov. 14, 1931	18.25	20,300	1949	Feb. 24, 1949	15.6	19,200
	Nov. 24, 1931	20.48	25,400				
	Dec. 31, 1931	21.1	26,700	1950	Feb. 8, 1950	c14.9	-
					June 19, 1950	16.62	22,300
1933	Sept. 26, 1933	14.94	13,500				
				1951	May 2, 1951	15.62	20,800
1934	June 23, 1934	10.42	5,130		June 22, 1951	14.48	17,700
					June 27, 1951	15.10	19,500
1935	May 20, 1935	17.38	18,800				
	May 24, 1935	16.20	16,300	1952	Mar. 13, 1952	13.42	15,000
	May 30, 1935	16.70	17,400		June 21, 1952	13.70	16,600
	June 1, 1935	19.82	24,000				
	June 18, 1935	18.86	22,000	1953	Mar. 30, 1953	13.7	16,600
1936	Feb. 25, 1936	12.40	5,650	1954	June 3, 1954	11.40	7,090
1937	Feb. 20, 1937	14.60	13,900	1955	June 25, 1955	12.24	9,590
1938	Sept. 1, 1938	11.1	6,340	1956	Aug. 2, 1956	15.25	19,200
1939	Mar. 13, 1939	18.15	22,700	1957	Apr. 3, 1957	14.30	15,900
1940	Aug. 18, 1940	14.9	15,700	1958	July 15, 1958	16.32	19,200
					July 19, 1958	16.00	18,200
1941	June 10, 1941	20.0	32,300		July 31, 1958	15.87	17,800
1942	Nov. 1, 1941	15.28	21,600	1959	Oct. 9, 1958	18.4	26,900
	June 20, 1942	20.35	29,300		Mar. 26, 1959	15.6	21,100
	June 27, 1942	22.2	35,400		Apr. 20, 1959	18.0	29,000
					May 11, 1959	15.0	18,200
1943	May 16, 1943	19.0	26,800		May 21, 1959	15.1	18,500
	June 8, 1943	16.17	18,000		May 30, 1959	17.0	25,700
	June 16, 1943	17.45	21,600		Aug. 8, 1959	22.5	47,300
					Sept. 27, 1959	16.6	21,100
1944	Mar. 15, 1944	15.33	15,400				
	Apr. 22, 1944	21.3	34,800	1960	Oct. 5, 1959	17.56	27,700
	May 3, 1944	18.00	23,500		Dec. 28, 1959	15.1	19,500
	June 9, 1944	15.60	16,200		Jan. 12, 1960	15.3	20,100

GRAND RIVER BASIN

Peak stages and discharges of Thompson River at Trenton, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 15, 1960	16.6	24,400	1963	Mar. 4, 1963	18.65	37,300
	Mar. 30, 1960	21.25	44,200	1964	June 22, 1964	15.10	23,000
	Apr. 17, 1960	15.6	25,000		Sept. 6, 1964	15.7	25,400
	May 6, 1960	19.65	41,600		Sept. 23, 1964	13.06	15,100
	May 16, 1960	14.35	20,200	1965	Mar. 17, 1965	16.95	26,200
	May 20, 1960	14.0	18,600		Apr. 8, 1965	16.40	23,900
	July 1, 1960	19.2	39,900		Apr. 11, 1965	17.10	26,600
	Aug. 26, 1960	13.3	15,900		Apr. 25, 1965	15.20	19,400
1961	Feb. 18, 1961	14.60	21,800		May 8, 1965	15.70	21,300
	Mar. 6, 1961	15.15	23,400		Sept. 21, 1965	20.40	40,200
	Mar. 13, 1961	14.95	22,600				
	Mar. 27, 1961	14.30	19,800				
	Apr. 12, 1961	15.55	25,000				
	Sept. 13, 1961	21.10	36,800				
	Sept. 30, 1961	18.30	26,400				
1962	Oct. 11, 1961	15.20	20,200				
	Oct. 13, 1961	14.10	17,100				
	Nov. 2, 1961	20.70	46,500				
	Nov. 16, 1961	19.85	42,500				
	Feb. 5, 1962	14.20	19,400				
	Mar. 11, 1962	16.10	27,000				
	May 29, 1962	16.62	29,000				
	June 11, 1962	20.95	47,800				

a Present site and datum.

b Determination by Corps of Engineers; annual peak only.

c Backwater from ice.

GRAND RIVER BASIN

6-8996. West Fork Leaky Branch near Chillicothe, Mo.

Location.--Lat 39°53'00", long 93°32'30", in NE¼SE¼ sec.36, T.59 N., R.24 W., on left bank just upstream from culvert under U. S. Highway 65, 6 miles north of Chillicothe.

Drainage area.--0.21 sq mi. Slope.--63.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 22.2, 283, 327, and 331 cfs.

Remarks.--Only annual peaks are shown.

Peaks stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	July 2, 1955	6.10	50				
1956	Aug. 1, 1956	10.80	331				
1957	July 22, 1957	9.32	283				
1958	July 30, 1958	10.60	326				
1959	Nov. 17, 1958	7.90	168				
1960	June 5, 1960	7.04	105				
1961	Sept. 13, 1961	6.70	82				
1962	June 6, 1962	7.32	125				
1963	Aug. 19, 1963	4.6	1				
1964	Sept. 17, 1964	6.31	60				
1965	Sept. 21, 1965	7.37	130				

GRAND RIVER BASIN

6-8997. Shoal Creek near Braymer, Mo.

Location--Lat 39°40'05", long 93°46'05", in NW¼NE¼ sec.13, T.56 N., R.26 W., on upstream side of bridge on Caldwell County Road O, 1-3/4 miles downstream from Panther Creek, and 6 miles north of Braymer.

Drainage area--391 sq mi. Slope--2.92 ft per mi.

Gage--Nonrecording Oct. 1 to Nov. 20, 1957, and Apr. 4 to Sept. 30, 1962; recording gage Nov. 21, 1957, to Apr. 3, 1962. Altitude of gage is 700 ft (from topographic map).

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--16 ft.

Remarks--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Feb. 28, 1958	18.7	3,520	1962	Oct. 31, 1961	18.60	3,040
	June 15, 1958	-	3,000		Nov. 4, 1961	25.30	7,500
	July 12, 1958	-	4,000		Nov. 14, 1961	18.58	3,040
	July 16, 1958	25.0	7,360		Feb. 6, 1962	-	4,000
	Aug. 1, 1958	23.0	5,900		Mar. 12, 1962	22.00	4,760
1959	Nov. 18, 1958	25.5	7,760	1963	June 8, 1962	20.00	3,620
	Feb. 11, 1959	18.7	3,520		Oct. 14, 1962	17.35	3,110
	May 20, 1959	19.95	4,150		Mar. 5, 1963	19.73	4,150
	Sept. 24, 1959	-	4,000		May 17, 1963	24.90	7,230
1960	Mar. 29, 1960	25.3	7,600	1964	June 13, 1964	18.55	3,140
	Apr. 15, 1960	21.0	4,650		June 22, 1964	28.00	26,000
	June 12, 1960	17.7	3,060	1965	Jan. 3, 1965	23.40	5,730
	June 24, 1960	19.0	3,650		Mar. 18, 1965	17.87	3,060
	July 2, 1960	25.6	7,840		July 22, 1965	26.00	8,600
1961	Mar. 14, 1961	21.03	4,140		Sept. 18, 1965	20.70	4,050
	Mar. 28, 1961	21.37	4,370		Sept. 22, 1965	26.10	8,750
	May 9, 1961	21.30	4,310				
	Sept. 15, 1961	25.94	8,100				

GRAND RIVER BASIN

6-9000. Medicine Creek near Galt, Mo.

Location.--Lat 40°07'45", long 93°21'45". in SW¼NW¼ sec.34, T.62 N., R.22 W., on left pier of bridge on State Highway 6, 1½ miles east of Galt and 2 miles upstream from West Medicine Creek.

Drainage area.--225 sq mi. Slope.--5.00 ft per mi.

Gage.--Nonrecording prior to Apr. 26, 1956; recording gage thereafter. At site 125 ft downstream prior to Dec. 3, 1934. At datum 6.97 ft higher than present gage prior to Oct. 1, 1924, at datum 4.97 ft higher than present gage Oct. 1, 1924, to Sept. 30, 1926, at datum 1.97 ft higher than present gage Oct. 1, 1926, to Dec. 2, 1934, and at datum 2.00 ft higher than at present gage Dec. 3, 1934, to Sept. 30, 1956. Datum of present gage is 767.48 ft above mean sea level, datum of 1929. All gage heights prior to 1927 have been converted to datum 2.00 ft higher than present datum.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs.

Bankfull stage.--17 ft.

Historical data.--Flood of July 1909 reached a discharge at about 8,000 cfs, determined by Corps of Engineers.

Remarks.--Major channel improvements made on creek during 1919-20. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1909	July	1909	-	a8,000	1943	Dec. 27, 1942		7.93	3,070
						May 16, 1943		13.17	10,700
1922	July 13, 1922		18.58	2,960		June 8, 1943		8.55	4,120
						June 16, 1943		8.75	4,360
1923	Nov. 15, 1922		18.00	2,230	1944	Apr. 21, 1944		10.9	7,180
1924	June 28, 1924		17.56	3,170	1945	Oct. 2, 1944		7.40	3,390
1925	Apr. 25, 1925		17.20	3,000		Apr. 15, 1945		8.46	4,460
						May 14, 1945		10.30	6,510
1926	June 19, 1926		16.40	3,040		June 9, 1945		7.40	3,390
	Sept. 14, 1926		17.64	3,700		June 16, 1945		10.52	7,010
	Sept. 17, 1926		19.00	4,640					
1927	Apr. 19, 1927		14.60	3,720	1946	Jan. 6, 1946		8.61	4,560
1928	June 18, 1928		14.18	6,260	1947	Apr. 4, 1947		16.88	16,900
	Sept. 12, 1928		14.20	6,260		June 6, 1947		18.9	24,200
						June 12, 1947		8.90	7,110
						June 18, 1947		10.40	9,300
1930	Oct. 31, 1929		7.64	1,890		June 23, 1947		8.40	6,410
						July 6, 1947		8.00	5,850
1931	Apr. 20, 1931		9.17	3,910					
1932	Oct. 7, 1931		8.90	3,280	1948	Feb. 27, 1948		7.66	5,460
	Nov. 14, 1931		10.40	5,400		Mar. 19, 1948		11.53	11,000
	Nov. 17, 1931		9.05	3,400	1949	Feb. 24, 1949		6.0	3,400
	Dec. 31, 1931		11.68	7,440		June 14, 1949		12.6	12,700
	Aug. 2, 1932		11.86	7,760		Sept. 13, 1949		6.0	3,400
	Aug. 17, 1932		9.78	4,500					
1933	May 13, 1933		7.32	1,660	1950	June 15, 1950		11.29	13,000
						June 19, 1950		7.5	8,300
1934	Sept. 13, 1934		5.56	456	1951	Feb. 20, 1951		4.75	3,830
						Apr. 7, 1951		5.48	4,950
1935	May 20, 1935		9.75	4,440		May 10, 1951		5.15	4,470
	June 1, 1935		11.00	6,340		June 22, 1951		5.85	5,430
	June 18, 1935		11.08	6,500		June 25, 1951		4.80	3,830
	July 3, 1935		10.30	5,220		June 28, 1951		4.80	3,830
						July 22, 1951		11.0	14,500
1936	Feb. 25, 1936		6.99	1,210	1952	Apr. 22, 1952		5.22	4,470
1937	Feb. 13, 1937		9.05	3,280		June 22, 1952		6.63	6,430
	Feb. 21, 1937		11.0	6,340	1953	Mar. 31, 1953		5.94	4,840
1938	June 2, 1938		6.81	1,090		Apr. 30, 1953		5.8	4,680
						May 5, 1953		5.49	4,200
1939	Mar. 12, 1939		12.9	12,300	1954	June 2, 1954		6.8	5,510
	Apr. 15, 1939		8.12	3,720					
	June 21, 1939		9.60	6,250	1955	May 12, 1955		5.6	4,360
1940	Aug. 18, 1940		7.4	2,820	1956	July 3, 1956		7.86	3,490
1941	June 3, 1941		7.94	3,070	1957	May 22, 1957		7.67	1,590
	June 9, 1941		12.84	10,000					
1942	June 26, 1942		14.3	12,400	1958	July 15, 1958		16.30	12,400
						July 31, 1958		10.64	3,980

GRAND RIVER BASIN

Peak stages and discharges of Medicine Creek near Galt, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Nov. 17, 1958	11.0	4,500	1962	Nov. 2, 1961	14.03	8,900
	Aug. 7, 1959	19.0	14,900		Nov. 16, 1961	12.15	6,950
1960	Oct. 6, 1959	12.40	6,530		May 27, 1962	8.85	4,180
	Jan. 13, 1960	8.82	3,220		May 29, 1962	10.90	5,740
	Mar. 29, 1960	14.55	9,010	1963	Mar. 4, 1963	10.15	6,200
	May 6, 1960	12.65	6,750		Mar. 31, 1963	7.17	3,280
	June 30, 1960	12.83	6,970	1964	Apr. 20, 1964	6.76	2,500
1961	Mar. 27, 1961	9.30	3,820	1965	Jan. 23, 1965	10.80	5,440
	Sept. 13, 1961	10.81	4,990		Mar. 17, 1965	7.77	3,200
	Sept. 23, 1961	9.21	3,680		Apr. 5, 1965	7.90	3,270
					Apr. 10, 1965	8.55	3,760
					Sept. 21, 1965	12.25	6,680

a Determination by Corps of Engineers; annual peak only.

GRAND RIVER BASIN

6-9005. Medicine Creek near Sturges, Mo.

Location.--Lat 39°52'45", long 93°26'45", on line between sec.35, T.59 N., R.23 W., and sec.2, T.58 N., R.23 W., at county highway bridge 3 miles east of Sturges.

Drainage area.--368 sq mi.

Gage.--Nonrecording. Datum of gage is 691.60 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 9,200 cfs.

Historical data.--Flood in July 1909 reached a discharge of 12,000 cfs, determined by Corps of Engineers.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Gage Discharge (cfs)
1909	July	--	12,000				
1929	Apr. 21, 1929	15.74	10,400				
1930	Oct. 30, 1929	10.4	3,800				
1931	June 6, 1931	10.36	5,700				
1932	Nov. 24, 1931	12.44	9,190				
1933	Dec. 24, 1932	9.04	3,660				

GRAND RIVER BASIN

6-9010. Locust Creek near Milan, Mo.

Location.--Lat 40°11'00", long 93°10'10", in SW¼ sec.8, T.62 N., R.20 W., at bridge on county highway, 3½ miles southwest of Milan.Drainage area.--225 sq mi. Slope.--5.13 ft per mi.Gage.--Nonrecording.Stage-discharge relation.--Defined by current-meter measurements below 3,100 cfs.Bankfull stage.--18 ft.Historical data.--Flood in July 1909 reached a discharge of 8,000 cfs, determined by Corps of Engineers.Remarks.--24 miles of new channel was dug in 1920, all work being 8 or more miles downstream from station. Base for partial-duration series, 2,150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 1909	--	a8,000				
1922	Apr. 8, 1922	15.00	2,240				
	July 12, 1922	16.75	2,840				
	July 18, 1922	16.90	2,880				
1923	Nov. 14, 1922	15.05	2,240				
1924	June 10, 1924	15.40	2,360				
	June 27, 1924	15.75	2,490				
1925	Apr. 25, 1925	17.70	3,200				
1926	Jan. 5, 1926	b15.10	--				
	Sept. 11, 1926	16.50	2,740				
	Sept. 17, 1926	18.10	3,260				
	Sept. 22, 1926	15.20	2,300				
1927	Oct. 5, 1926	16.60	2,770				
	Apr. 3, 1927	15.95	2,590				
	Apr. 21, 1927	16.18	2,650				
	June 5, 1927	15.84	2,530				
1928	June 19, 1928	17.30	2,980				
	Sept. 12, 1928	17.20	2,950				
1929	Nov. 2, 1928	19.92	3,820				
	Nov. 18, 1928	20.07	3,880				
	Mar. 1, 1929	b17.10	2,400				
	Mar. 8, 1929	15.30	2,380				
	Apr. 20, 1929	19.40	3,650				
	June 3, 1929	17.14	2,920				
1930	Oct. 13, 1929	15.40	2,410				
	Nov. 1, 1929	15.5	2,440				
1931	Apr. 22, 1931	14.80	2,230				
	June 6, 1931	15.97	2,650				
1932	Oct. 8, 1931	15.20	2,350				
	Nov. 15, 1931	16.72	2,800				
	Nov. 25, 1931	17.62	3,070				
	Jan. 2, 1932	16.80	2,830				
	Apr. 22, 1932	15.36	2,410				
	Aug. 3, 1932	18.00	3,200				
	Aug. 8, 1932	15.18	2,350				
	Aug. 18, 1932	18.12	3,230				
1933	Dec. 26, 1932	14.87	2,260				

a Determination by Corps of Engineers; annual peak only.

b Backwater from ice.

GRAND RIVER BASIN

6-9013. Moffet Branch near Reger, Mo.

Location.--Lat 40°08'00", long 93°15'00", in NW¼ sec.34, T.62 N., R.21 W., on left bank just upstream from culvert under State Highway 6, 2½ miles west of Reger, and 3-3/4 miles east of Humphreys.

Drainage area.--0.13 sq mi. Slope.--150 ft per mi.

Gage.--Crest-stage gage; supplemental recorder Apr. 24, 1964 to May 19, 1965.

Stage-discharge relation.--Defined by indirect measurements at 188, 230, and 349 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 14, 1955	6.35	230				
1956	Oct. 5, 1955	7.58	370				
1957	July 15, 1957	4.15	135				
1958	July 15, 1958	7.40	349				
1959	Nov. 17, 1958	4.37	150				
1960	June 30, 1960	5.76	232				
1961	Apr. 21, 1961	4.20	140				
1962	Nov. 2, 1961	5.88	240				
1963	July 15, 1963	6.26	265				
1964	June 12, 1964	3.60	105				
1965	Apr. 24, 1965	5.02	185				

GRAND RIVER BASIN

6-9015. Locust Creek near Linneus, Mo.

Location.--Lat 39°53'45", long 93°14'10", in NW¼NE¼ sec.34, T.59 N., R.21 W., on right bank 25 ft downstream from county highway bridge, 2 miles northwest of linneus and 5 miles downstream from West Locust Creek.

Drainage area.--550 sq mi, approximately. Slope.--4.22 ft per mi.

Gage.--Nonrecording prior to July 27, 1956; recording gage thereafter. Datum of gage is 692.61 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current meter measurements below 15,000 cfs and by indirect measurement at 38,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Gage located on 24-mile reach of new channel, dug in 1920. Base for partial-duration series, 7,500 cfs.

Peak stages and discharges								
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet) Discharge (cfs)
1909	July	1909	-	a18,000	1949	June 1, 1949	15.3	9,420
						June 15, 1949	15.4	9,570
1930	June 30, 1930		14.44	7,920		July 12, 1949	14.2	7,600
1931	Apr. 20, 1931		15.86	8,800	1950	June 16, 1950	17.2	13,200
	June 6, 1931		15.73	8,610		June 20, 1950	15.3	11,100
1932	Nov. 23, 1931		16.04	8,900	1951	Apr. 6, 1951	14.2	9,320
	Dec. 31, 1931		15.70	8,610		June 2, 1951	14.1	9,160
						June 21, 1951	15.0	10,600
1933	Dec. 24, 1932		11.14	4,390		June 27, 1951	13.8	8,680
						July 24, 1951	16.2	12,300
1934	Apr. 5, 1934		6.22	900	1952	June 22, 1952	13.5	8,200
1935	May 28, 1935		15.05	7,940	1953	Mar. 31, 1953	17.8	14,000
	June 2, 1935		18.97	11,800				
	July 4, 1935		15.11	8,040	1954	June 2, 1954	13.7	7,280
1936	Feb. 26, 1936		9.89	3,100	1955	June 25, 1955	14.19	8,000
	Sept. 26, 1936		9.99	3,100				
1937	Jan. 30, 1937		b14.67	5,110	1956	July 3, 1956	15.99	5,640
1938	Apr. 10, 1938		5.81	639	1957	Apr. 4, 1957	9.40	1,910
	June 7, 1938		5.74	639		May 21, 1957	9.40	1,910
1939	June 21, 1939		21.3	15,400	1958	May 5, 1958	18.6	9,190
1940	Aug. 18, 1940		10.6	3,110		July 15, 1958	24.7	24,000
						July 19, 1958	21.1	15,000
1941	June 11, 1941		16.7	11,800		July 31, 1958	21.2	15,200
1942	June 26, 1942		21.2	19,000	1959	Nov. 17, 1958	18.35	10,300
1943	Dec. 26, 1942		15.5	8,930	1960	Oct. 7, 1959	17.72	8,870
	May 18, 1943		15.5	8,930		Mar. 30, 1960	19.60	12,100
	June 8, 1943		16.6	10,700		May 6, 1960	17.92	9,190
	June 10, 1943		16.64	10,800		June 30, 1960	20.50	13,800
	June 16, 1943		15.52	8,930		July 2, 1960	19.50	12,000
1944	Apr. 23, 1944		22.50	20,100	1961	Mar. 13, 1961	17.06	7,990
	June 10, 1944		14.78	7,720		Apr. 22, 1961	18.14	9,520
						Sept. 13, 1961	18.16	9,690
1945	Apr. 18, 1945		14.80	7,720	1962	Nov. 11, 1961	19.00	11,000
	May 16, 1945		16.80	10,700		Nov. 17, 1961	18.80	10,700
	June 9, 1945		15.60	8,920	1963	Mar. 4, 1963	18.12	9,520
	June 16, 1945		20.45	16,500	1964	Apr. 21, 1964	14.48	5,180
1946	Jan. 6, 1946		15.6	8,920	1965	Jan. 1, 1965	20.14	13,000
1947	Apr. 6, 1947		19.60	15,200		Sept. 21, 1965	20.92	12,700
	May 28, 1947		16.00	9,520				
	June 6, 1947		26.93	38,000				
	June 13, 1947		18.60	14,600				
	June 19, 1947		20.11	17,100				
	June 23, 1947		17.75	13,300				
1948	Mar. 20, 1948		16.87	11,900				

a Determination by Corps of Engineers; annual peak only.

b Backwater from ice.

GRAND RIVER BASIN

6-9020. Grand River near Sumner, Mo.

Location.--Lat 39°38'25", long 93°16'25", in NE¼ sec.29, T.56 N., R.21 W., on downstream side of right pier of main truss of bridge on County Highway E, 120 ft downstream from Chicago, Burlington & Quincy Railroad bridge, 2 miles southwest of Sumner and 2½ miles downstream from Locust Creek.

Drainage area.--6,880 sq mi, approximately. Slope.--3.15 ft per mi.

Gage.--Nonrecording at site 80 ft upstream prior to July 11, 1926, at present site July 11, 1926, to July 9, 1939, and Aug. 9, 1952, to Nov. 12, 1953. Recording gage at site 80 ft upstream July 10, 1939, to Aug. 8, 1952, and at present site since Nov. 13, 1953. Datum of all gages is 630.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 163,000 cfs. Slope is a factor at high stages.

Bankfull stage.--25 ft.

Remarks.--Extensive channel improvement and drainage work in basin above station prior to establishment of gaging station. Base for partial-duration series, 38,000 cfs.

Peak stages and discharges													
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)				
1909	July	1909	36.7	ab150,000	1945	Apr. 19, 1945		32.60	67,800				
1922	July	1922	31.5	b51,000		May 18, 1945		33.5	86,200				
						May 19, 1945		34.32	-				
						June 11, 1945		30.58	52,200				
1923	Nov.	1922	32.0	b54,000		June 18, 1945		33.32	79,300				
1924	July	1, 1924	28.56	36,600	1946	Jan. 8, 1946		34.2	89,300				
1925	Apr.	27, 1925	28.00	33,000		Mar. 19, 1946		30.10	43,100				
1926	Sept.	21, 1926	32.42	56,400		Mar. 15, 1947		30.22	40,600				
						Apr. 7, 1947		35.05	98,000				
						May 31, 1947		30.75	51,700				
1927	Oct.	8, 1926	30.50	45,200		June 8, 1947		39.5	180,000				
						Apr. 22, 1927		30.80	47,800				
						June 16, 1947		31.78	56,900				
1928	Sept.	17, 1928	30.70	46,900		June 25, 1947		37.15	145,000				
1929	Nov.	20, 1928	35.35	107,000		Mar. 21, 1948		31.8	61,000				
1929	Mar.	2, 1929	29.95	41,500	1949	Feb. 27, 1949		31.2	54,000				
										Apr. 23, 1929		33.60	79,400
										June 4, 1929		35.25	110,000
1930	Feb.	10, 1930	23.22	18,200	1951	May 4, 1951		30.70	45,800				
1931	Apr.	22, 1931	28.00	35,600		June 24, 1951		31.34	52,400				
						June 29, 1951		32.3	57,000				
						July 9, 1951		31.57	60,000				
1932	Nov.	19, 1931	31.32	52,600									
										Nov. 26, 1931		33.30	84,600
										Jan. 4, 1932		30.92	48,700
1933	Dec.	26, 1932	25.35	22,800	1953	Apr. 2, 1953		31.46	59,100				
1934	Apr.	5, 1934	15.29	8,280	1954	June 3, 1954		28.6	23,800				
1935	May	23, 1935	29.61	42,900	1955	Feb. 21, 1955		30.7	45,800				
1935	June	4, 1935	33.25	72,000	1956	Aug. 4, 1956		29.80	32,200				
										June 21, 1935		29.30	41,000
1936	Feb.	28, 1936	29.10	41,000	1957	Apr. 4, 1957		27.95	22,500				
1937	Feb.	22, 1937	c30.28	-	1958	May 6, 1958		30.40	41,200				
										Mar. 6, 1937		28.60	36,800
1938	June	2, 1938	14.99	8,120	1959	Nov. 20, 1958		31.75	52,300				
1939	June	24, 1939	29.95	45,300		Mar. 29, 1959		31.90	42,700				
1940	Mar.	3, 1940	23.79	18,000	1960	Oct. 8, 1959		32.48	50,000				
1941	June	12, 1941	29.9	45,500		Jan. 17, 1960		32.60	52,400				
						Apr. 1, 1960		37.20	104,000				
						May 8, 1960		32.35	46,800				
1942	June	28, 1942	35.83	89,900		July 3, 1960		33.48	76,500				
1943	Dec.	28, 1942	30.46	44,700	1961	Mar. 15, 1961		32.47	52,000				
						Mar. 29, 1961		32.20	46,000				
						May 18, 1943		30.44	42,600				
						June 4, 1943		31.89	55,200				
1944	Apr.	25, 1944	36.55	115,000		Sept. 17, 1961		35.26	65,600				
						June 19, 1943		32.22	60,600				
						Nov. 5, 1961		35.20	94,700				
1944	May	6, 1944	30.37	47,100	1962	Nov. 19, 1961		34.46	88,500				
						Mar. 14, 1962		32.56	52,400				
					1963	Mar. 6, 1963		32.26	45,200				

GRAND RIVER BASIN

Peak stages and discharges of Grand River near Sumner, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1964	June 25, 1964	32.26	45,200				
1965	Jan. 3, 1965	31.89	45,200				
	Mar. 19, 1965	32.28	45,200				
	Sept. 23, 1965	35.44	77,300				

a Determination by Corps of Engineers.

b Annual peak only.

c Backwater from ice.

GRAND RIVER BASIN

6-9022. West Yellow Creek near Brookfield, Mo.

Location.--Lat 39°50'40", long 93°01'36", in SE¼NE¼ sec.16, T.58 N., R.19 W., at right downstream pier of county highway bridge, 3½ miles northeast of Brookfield, and 1½ miles below Bear Creek.

Drainage area.--135 sq mi. Slope.--3.92 ft per mi.

Gage.--Recording. Altitude of gage is 738 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 3,040 cfs.

Remarks.--Base for partial duration series, 800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 15, 1960	12.65	2,100	1961	Mar. 8, 1961	12.57	1,180
	Mar. 28, 1960	13.66	3,750		Mar. 13, 1961	13.14	1,840
	Apr. 18, 1960	11.17	825		Mar. 19, 1961	12.72	1,300
	Apr. 30, 1960	12.40	1,800		Mar. 27, 1961	12.87	1,450
	May 8, 1960	13.15	3,000		Apr. 22, 1961	13.48	2,550
	May 17, 1960	11.96	1,200		May 8, 1961	12.70	1,300
	May 22, 1960	12.26	1,650		July 25, 1961	13.14	1,840
	June 14, 1960	12.38	1,800		Sept. 14, 1961	13.96	3,700
1961	July 1, 1960	13.80	3,900		Sept. 25, 1961	12.40	1,080
				1962	Oct. 30, 1961	13.10	1,760
					Nov. 3, 1961	13.10	1,760
					Nov. 16, 1961	13.15	1,840
					Nov. 22, 1961	12.74	1,350
					Jan. 29, 1962	-	1,000
					Feb. 5, 1962	-	1,600
					Feb. 14, 1962	-	1,100
					Mar. 13, 1962	12.93	1,560
1962					Mar. 21, 1962	-	1,200
				1963	Mar. 6, 1963	13.17	1,840
				1964	Apr. 7, 1964	12.09	920
					Apr. 22, 1964	12.40	1,080
				1965	Jan. 2, 1965	13.73	3,120
					Jan. 23, 1965	12.81	1,400
					Feb. 7, 1965	11.90	845
					Mar. 17, 1965	13.05	1,690
					Apr. 6, 1965	12.71	1,300
					Apr. 12, 1965	12.19	970
					Sept. 16, 1965	12.71	1,300
					Sept. 21, 1965	14.62	5,140

GRAND RIVER BASIN

6-9025. Hamilton Branch near New Boston, Mo.

Location--Lat 39°57'08", long 92°54'08", in SE¼SW¼ sec.3, T.59 N., R.18 W., at bridge on State Highway 11, 0.5 mile upstream from New Boston Branch, and 2½ miles west of New Boston.

Drainage area--2.51 sq mi. Slope--27.0 ft per mi.

Gage--Recording.

Stage-discharge relation--Defined by current-meter measurements below 45.8 cfs and by indirect measurements at 612 and 637 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Aug. 2, 1956	6.81	612				
1957	July 29, 1957	6.33	520				
1958	July 15, 1958	7.45	693				
1959	Feb. 9, 1959	4.55	203				
1960	June 30, 1960	8.10	800				
1961	Apr. 21, 1961	7.35	675				
1962	Oct. 29, 1961	5.90	414				
1963	Mar. 4, 1963	4.77	232				
1964	June 14, 1964	5.50	350				
1965	Sept. 20, 1965	8.55	880				

GRAND RIVER BASIN

6-9028. Onion Branch at St. Catherine, Mo.

Location--Lat 39°47'46", long 92°59'17", in NE¼SE¼ sec.35, T.58 N., R.19 W., on right downstream wingwall of culvert under State Highway 11, and in left bank upstream from culvert, 0.3 mile northeast of St. Catherine, and 5 miles northeast of Brookfield.

Drainage area--1.04 sq mi. Slope--49.3 ft per mi.

Gage--Crest-stage gage; supplemental recording gage since Nov. 27, 1961.

Stage-discharge relation--Defined by indirect measurements at 285 and 982 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	15.39	285				
1956	Oct. 5, 1955	12.54	78				
1957	May 16, 1957	15.65	340				
1958	July 15, 1958	17.11	982				
1959	Sept. 23, 1959	15.91	410				
1960	May 16, 1960	14.43	190				
1961	July 25, 1961	16.71	725				
1962	Oct. 29, 1961	13.41	120				
1963	June 28, 1963	10.73	20				
1964	Sept. 6, 1964	13.28	110				
1965	Sept. 21, 1965	16.70	430				

GRAND RIVER BASIN

6-9030. Yellow Creek near Rothville, Mo.

Location.--Lat 39°38', long 93°05', on line between NW¼ sec.31, T.56 W., R.19 W., and NE¼ sec.36, T.56 N., R.20 W., at bridge on State Highway 11, 2½ miles southwest of Rothville and 3 miles downstream from East Yellow Creek.

Drainage area.--405 sq mi. Slope.--4.27 ft per mi.

Gage.--Nonrecording prior to 1952; crest-stage gage since 1961. Datum of gage is 664.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,900 cfs.

Bankfull stage.--19 ft.

Historical data.--Maximum stage known, 23.1 ft in June 1947. Flood of July 1909 reached a discharge of 15,000 cfs, determined by Corps of Engineers.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges								
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Discharge (cfs)
1909	July	1909	-	a15,000	1950	Jan. 2, 1950	18.8	2,230
						June 4, 1950	17.7	1,880
1929	Nov.	1928	b22.0	-		June 17, 1950	21.40	9,000
1930	Oct. 12, 1929		17.6	1,900	1951	Feb. 22, 1951	19.80	2,710
	Nov. 1, 1929		17.4	1,840		Apr. 9, 1951	20.52	3,640
	Feb. 9, 1930		17.9	1,970		June 24, 1951	20.85	4,900
	July 2, 1930		19.56	2,630		June 29, 1951	21.26	8,200
1931	Apr. 23, 1931		20.60	5,450	1961	Sept. 14, 1961	22.23	b6,160
	June 9, 1931		20.4	3,700				
	June 14, 1931		19.3	2,470	1962	Nov. 5, 1961	20.95	b4,500
1932	Nov. 19, 1931		20.6	3,920	1963	Mar. 6, 1963	18.79	b2,230
	Nov. 25, 1931		21.16	7,400				
	Jan. 3, 1932		20.7	4,400	1964	Apr. 6, 1964	18.45	b2,100
1947	June	1947	b23.1	-	1965	Sept. 1965	22.73	b8,350
1949	Jan. 16, 1949		17.4	1,810				
	Feb. 26, 1949		17.4	1,810				
	June 3, 1949		21.19	7,400				
	July 14, 1949		17.8	1,910				
	Sept. 14, 1949		17.7	1,880				

a Determination by Corps of Engineers.

b Annual peak only.

CHARITON RIVER BASIN

6-9045. Chariton River at Novinger, Mo.
(Published as "at Elmer" prior to 1931)

Location.--Lat 40°14'05", long 92°41'14", on south line SE¼NE¼ sec.28, T.63 N., R.16 W., attached to downstream side of left pier of bridge over new channel on State Highway 6, 1,000 ft downstream from Chicago, Burlington & Quincy Railroad bridge, 0.6 mile east of Novinger, 1 mile downstream from Rye Creek, and 2 miles upstream from Spring Creek.

Drainage area.--1,370 sq mi, approximately; prior to Oct. 1, 1930, 1,660 sq mi approximately. Slope.--2.63 ft per mi.

Gage.--Nonrecording prior to Dec. 20, 1939 and Aug. 2, 1956, to May 16, 1957; recording gage Dec. 20, 1939, to Sept. 30, 1952, Oct. 1, 1954, to Aug. 1, 1956, and since May 16, 1957. At site 36½ miles (prior to 1952 shortening) downstream prior to Oct. 1, 1930. At datum 43.80 ft lower July 1, 1921, to Sept. 30, 1924. At datum 46.80 ft lower Oct. 1, 1924, to Sept. 30, 1926, and at datum 49.80 ft lower than present gage Oct. 1, 1926, to Sept. 30, 1930. Datum of gage is 737.65 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs at former site; below 20,000 cfs at present site.

Bankfull stage.--20 ft.

Remarks.--Channel improved from point 6 miles downstream from former site to mouth prior to June 1921. Channel improvement made in vicinity of former site during 1922-23 and channel improvement below present gage completed in June 1952. Base for partial-duration series, 6,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 1917	a28.6	27,000	1940	Aug. 18, 1940	18.42	3,680
1922	July 13, 1922	19.64	7,350	1941	June 11, 1941	23.90	9,860
	July 18, 1922	19.30	7,080	1942	Nov. 2, 1941	22.7	6,900
1923	Nov. 14, 1922	17.24	5,560	1943	Dec. 28, 1942	23.14	7,710
1924	Mar. 29, 1924	16.00	6,000		May 21, 1943	24.28	10,600
1925	Apr. 27, 1925	18.66	7,200		June 17, 1943	24.07	10,000
1926	Sept. 21, 1926	24.56	18,700	1944	Mar. 17, 1944	22.69	6,640
1927	Oct. 4, 1926	22.00	16,400		Apr. 16, 1944	22.74	6,640
	Apr. 2, 1927	17.4	8,620		Apr. 23, 1944	25.86	15,200
	Apr. 21, 1927	26.10	21,800		June 14, 1944	23.32	8,060
	June 4, 1927	19.1	11,300	1945	May 20, 1945	25.37	13,700
1928	Oct. 2, 1927	22.67	17,800		June 10, 1945	23.12	7,540
	Oct. 11, 1927	17.3	8,480		June 17, 1945	26.34	16,400
	June 18, 1928	20.0	12,800		June 21, 1945	23.66	9,020
	July 11, 1928	16.2	7,060	1946	Jan. 6, 1946	23.92	9,540
	Sept. 17, 1928	17.15	8,340		Jan. 11, 1946	24.25	10,300
1929	Nov. 17, 1928	24.06	22,500		Mar. 24, 1946	23.80	9,280
	Mar. 5, 1929	15.4	8,200		June 23, 1946	26.0	15,500
	Apr. 22, 1929	20.6	16,900		July 21, 1946	23.93	8,720
	June 5, 1929	15.4	8,200	1947	Apr. 6, 1947	24.95	12,000
1930	Nov. 1, 1929	13.80	6,200		June 7, 1947	28.50	22,900
1931	Apr. 21, 1931	22.17	6,500		June 13, 1947	28.50	22,900
	June 7, 1931	22.60	7,160		June 19, 1947	25.37	12,300
1932	Nov. 24, 1931	26.03	15,400		June 28, 1947	24.68	9,940
	Aug. 17, 1932	25.47	14,000	1948	Mar. 20, 1948	25.23	11,600
1933	Dec. 25, 1932	22.02	6,500	1949	Feb. 25, 1949	b23.85	-
1934	Sept. 12, 1934	16.96	3,250		Feb. 27, 1949	23.10	6,510
1935	May 21, 1935	22.17	6,500		Apr. 1, 1949	23.10	6,510
	June 2, 1935	24.98	12,600		June 16, 1949	23.6	7,640
	June 22, 1935	24.04	10,100	1950	June 15, 1950	26.22	15,000
	July 9, 1935	23.08	8,100		June 20, 1950	26.66	16,700
1936	Feb. 26, 1936	19.50	4,000	1951	Feb. 20, 1951	24.12	8,020
1937	Feb. 21, 1937	b23.84	6,820		Apr. 8, 1951	24.16	8,340
1938	June 4, 1938	11.89	1,690		July 23, 1951	24.32	8,660
1939	Mar. 13, 1939	24.99	12,600	1952	Mar. 13, 1952	23.87	7,380
	Mar. 17, 1939	25.09	12,900	1955	Jan. 6, 1955	23.1	6,200
	Apr. 17, 1939	23.52	8,940	1956	Oct. 6, 1955	18.18	-
					July 4, 1956	-	2,400
				1957	July 29, 1957	20.60	4,940
				1958	Aug. 2, 1958	23.10	7,900

CHARITON RIVER BASIN

Peak stages and discharges of Chariton River at Novinger, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Mar. 27, 1959	20.80	6,820	1962	Nov. 3, 1961	20.53	8,680
	May 27, 1959	21.13	7,100		Nov. 7, 1961	19.23	7,970
	June 1, 1959	23.20	9,710		Nov. 16, 1961	20.93	9,780
	Aug. 8, 1959	22.03	9,300		Nov. 22, 1961	19.20	7,970
					Feb. 5, 1962	19.30	8,070
1960	Oct. 7, 1959	22.35	10,100		Mar. 12, 1962	18.50	8,000
	Jan. 15, 1960	19.77	7,250		Mar. 22, 1962	20.20	9,820
	Apr. 2, 1960	26.65	22,000				
	Apr. 7, 1960	24.04	13,400	1963	Mar. 5, 1963	22.03	12,100
	May 26, 1960	19.55	7,050				
	July 1, 1960	23.98	13,400	1964	Apr. 20, 1964	20.20	10,100
	July 10, 1960	20.25	7,450				
				1965	Jan. 2, 1965	18.22	8,000
1961	Mar. 8, 1961	18.95	7,770		Mar. 17, 1965	20.10	12,200
	Mar. 13, 1961	20.70	9,560		Apr. 6, 1965	17.90	9,900
	Mar. 27, 1961	19.85	8,570		Apr. 11, 1965	20.97	13,700
	Apr. 22, 1961	17.80	6,670		Apr. 15, 1965	18.82	11,300
	Sept. 13, 1961	19.55	8,370		Apr. 25, 1965	14.75	7,200
	Sept. 24, 1961	19.30	8,070		June 4, 1965	17.70	10,100
					June 6, 1965	17.52	9,900
					Sept. 21, 1965	22.14	15,000

a At present site; annual peak only.

b Backwater from ice.

CHARITON RIVER BASIN

6-9047. Strop Branch near Novinger, Mo.

Location.--Lat 40°13'05", long 92°42'55", in NE¼SW¼ sec.32, T.63 N., R.16 W., on left bank about 15 ft downstream from culvert and 1 mile southwest of Novinger.

Drainage area.--0.96 sq mi. Slope.--94.7 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 62.6 and 1,730 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	July 23, 1955	14.15	210				
1956	July 1, 1956	16.46	1,730				
1957	Apr. 3, 1957	13.25	52				
1958	July 30, 1958	15.36	770				
1959	Oct. 7, 1958	13.41	65				
1960	June 12, 1960	15.01	550				
1961	Sept. 13, 1961	14.51	330				
1962	Oct. 29, 1961	14.33	270				
1963	Mar. 4, 1963	14.53	330				
1964	Apr. 5, 1964	13.63	100				
1965	Sept. 20, 1965	15.45	840				

CHARITON RIVER BASIN

6-9055. Chariton River near Prairie Hill, Mo.
(Published as "near Keytesville" prior to Oct. 1, 1953)

Location.--Lat 39°32'25", long 92°47'23", in SW¼SW¼ sec.26, T.55 N., R.17 W., on right bank on downstream side of bridge on State Highway 129, 3.2 miles northwest of Prairie Hill, and 13½ miles upstream from Puzzle Creek.

Drainage area.--1,870 sq mi, approximately. Slope.--2.25 ft per mi.

Gage.--Nonrecording prior to July 3, 1958, recording gage thereafter. At site 8½ miles downstream at datum 13.68 ft lower prior to Oct. 1, 1953. Datum of present gage is 632.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Remarks.--During 1906 channel 33½ miles long dug from Missouri River at Chariton-Macon county line to replace 290 miles of natural channel. Channel improvement extended upstream after 1909. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Nov. 18, 1928	22.54	a24,000	1950	June 23, 1950	22.36	14,900
1930	Nov. 2, 1929	18.64	6,800	1951	June 28, 1951	21.87	10,400
1931	June 8, 1931	20.02	9,690	1952	Mar. 19, 1952	19.25	9,590
1932	Nov. 19, 1931	19.92	9,100	1953	Apr. 2, 1953	21.55	13,800
	Nov. 27, 1931	21.46	17,500				
	Jan. 6, 1932	19.86	9,100	1954	June 2, 1954	13.6	7,670
	Aug. 21, 1932	21.47	17,500				
1933	Dec. 25, 1932	20.64	12,500	1955	Jan. 5, 1955	17.2	13,500
	May 13, 1933	20.47	12,000		Feb. 19, 1955	14.28	9,020
1934	Apr. 5, 1934	15.78	4,760	1956	July 3, 1956	13.3	7,620
1935	May 29, 1935	22.23	15,000	1957	July 29, 1957	14.67	7,910
	June 3, 1935	22.72	18,000	1958	Oct. 24, 1957	17.52	10,200
1936	Feb. 27, 1936	21.04	9,200		July 16, 1958	19.7	14,400
1937	Feb. 21, 1937	b21.66	-		July 20, 1958	18.61	11,800
	Feb. 22, 1937	b21.29	8,700		Aug. 1, 1958	20.22	15,600
1938	Apr. 11, 1938	18.3	6,020	1959	June 2, 1959	16.78	10,900
1939	Mar. 20, 1939	21.5	12,000	1960	Oct. 7, 1959	16.15	9,960
	Apr. 19, 1939	21.39	9,600		Apr. 4, 1960	20.4	21,500
	June 22, 1939	21.57	10,600		May 1, 1960	15.7	10,500
1940	Mar. 4, 1940	16.3	4,350		May 8, 1960	19.05	17,600
1941	June 14, 1941	20.8	8,370		May 27, 1960	15.47	10,100
1942	June 26, 1942	23.41	21,000		July 2, 1960	19.34	18,400
1943	May 20, 1943	22.08	13,000	1961	Mar. 13, 1961	16.70	12,900
	June 11, 1943	21.53	10,200		Mar. 28, 1961	16.00	11,700
	June 17, 1943	21.89	21,000		Apr. 22, 1961	16.65	12,700
1944	Mar. 16, 1944	21.76	11,400		Sept. 14, 1961	20.10	15,400
	Apr. 12, 1944	21.30	9,500		Sept. 25, 1961	17.44	9,900
	Apr. 24, 1944	23.01	17,200	1962	Nov. 3, 1961	17.80	14,600
1945	May 22, 1945	22.17	13,300		Nov. 8, 1961	14.70	10,000
	June 10, 1945	21.98	12,300		Nov. 17, 1961	17.30	15,000
	June 19, 1945	22.76	16,200		Nov. 22, 1961	16.65	13,700
1946	Jan. 5, 1946	23.0	17,200		Jan. 28, 1962	14.60	10,300
	Mar. 26, 1946	21.56	10,500		Feb. 5, 1962	15.45	11,600
	June 27, 1946	22.16	12,700		Mar. 12, 1962	14.30	9,780
1947	Apr. 6, 1947	22.80	15,600		Mar. 21, 1962	17.02	14,400
	June 2, 1947	22.20	12,700	1963	Mar. 5, 1963	17.70	15,800
	June 9, 1947	25.3	25,600	1964	Apr. 21, 1964	16.60	13,700
	June 16, 1947	24.10	20,000	1965	Jan. 2, 1965	19.25	19,100
	June 19, 1947	24.92	23,700		Jan. 22, 1965	14.00	9,300
	July 1, 1947	22.55	13,300		Mar. 17, 1965	18.60	17,700
1948	Mar. 20, 1948	22.6	13,300		Apr. 6, 1965	17.75	15,200
	Mar. 23, 1948	22.6	13,300		Apr. 12, 1965	17.40	14,400
1949	June 26, 1949	20.1	9,620		Apr. 16, 1965	15.80	11,600
					June 6, 1965	15.50	11,800
					Sept. 16, 1965	14.50	9,780
					Sept. 22, 1965	19.90	17,500

a Annual peak only.

b Backwater from ice.

CHARITON RIVER BASIN

6-9057. Puzzle Creek near Salisbury, Mo.

Location.--Lat 39°26'30", long 92°47'30", in SW $\frac{1}{4}$ sec.35, T.54 N., R.17 W., on right bank just upstream from culvert on State Highway 129, three-quarters of a mile north of Salisbury.

Drainage area.--0.80 sq mi. Slope.--55.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 100 and 556 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	July 18, 1955	5.73	100				
1956	July 2, 1956	6.23	150				
1957	June 14, 1957	6.05	130				
1958	July 19, 1958	8.50	556				
1959	Feb. 9, 1959	5.67	95				
1960	June 30, 1960	6.64	200				
1961	Sept. 13, 1961	7.60	401				
1962	July 15, 1962	6.27	155				
1963	Mar. 4, 1963	6.06	130				
1964	July 11, 1964	5.67	95				
1965	June 6, 1965	7.80	390				

CHARITON RIVER BASIN

6-9060. Mussel Fork near Musselfork, Mo.

Location.--Lat 39°31'26", long 92°56'59", in SW¼SW¼SE¼ sec.32, T.55 N., R.18 W., at downstream side of left pier of bridge on State Highway 5, 4½ miles southwest of Musselfork, and 1½ miles upstream from Long Branch.

Drainage area.--267 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1952; recording since October 1962. Datum of gage is 639.25 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined below 3,750 cfs by current-meter measurements.

Historical data.--Maximum stage known, 20.7 ft in June 1947, from information by local resident.

Remarks.--Base for partial-duration series, 1,200 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 16, 1949	-	2,420	1950	Jan. 2, 1950	15.9	1,600
	Feb. 21, 1949	-	1,200		June 3, 1950	16.9	1,940
	Feb. 26, 1949	-	1,650		June 17, 1950	18.7	2,650
	June 3, 1949	-	2,460				
	Sept. 15, 1949	-	1,650				
1951	Feb. 22, 1951	17.53	2,120	1951	Feb. 22, 1951	17.53	2,120
	Apr. 9, 1951	17.55	2,160		Apr. 9, 1951	17.55	2,160
	June 3, 1951	16.45	1,800		June 3, 1951	16.45	1,800
	June 24, 1951	18.05	2,300		June 24, 1951	18.05	2,300
	June 29, 1951	18.96	4,380		June 29, 1951	18.96	4,380
	July 12, 1951	15.36	1,550		July 12, 1951	15.36	1,550
	July 25, 1951	14.90	1,430		July 25, 1951	14.90	1,430
1963	Mar. 7, 1963	17.22	1,960	1963	Mar. 7, 1963	17.22	1,960
	May 17, 1963	17.32	1,990		May 17, 1963	17.32	1,990
1964	Apr. 5, 1964	17.94	2,190	1964	Apr. 5, 1964	17.94	2,190
	Apr. 22, 1964	16.59	1,800		Apr. 22, 1964	16.59	1,800
1965	Jan. 3, 1965	20.10	3,020	1965	Jan. 3, 1965	20.10	3,020
	Jan. 23, 1965	18.75	2,500		Jan. 23, 1965	18.75	2,500
	Feb. 8, 1965	15.04	1,470		Feb. 8, 1965	15.04	1,470
	Mar. 17, 1965	18.93	2,540		Mar. 17, 1965	18.93	2,540
	Apr. 6, 1965	18.75	2,500		Apr. 6, 1965	18.75	2,500
	Sept. 18, 1965	19.42	2,740		Sept. 18, 1965	19.42	2,740
	Sept. 23, 1965	19.85	2,900		Sept. 23, 1965	19.85	2,900

LITTLE CHARITON RIVER BASIN

6-9063. East Fork Chariton River near Huntsville, Mo.

Location.--Lat 39°27'19", long 92°34'09", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.26, T.54 N., R.15 W., at downstream side of left pile bent of bridge on County Highway C, 1 mile downstream from Sugar Creek, and 1 $\frac{1}{2}$ miles northwest of Huntsville.

Drainage area.--220 sq mi.

Gage.--Recording. Datum of gage is 656.43 ft above mean sea level, datum of 1929 (levels by Missouri Highway Department).

Stage-discharge relation.--Defined by current-meter measurement below 3,280 cfs.

Remarks.--Base for partial-duration series, 1,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1963	Mar. 4, 1963	15.65	1,210				
	May 18, 1963	14.93	1,110				
1964	Apr. 7, 1964	15.43	1,180				
	Apr. 21, 1964	14.80	1,100				
1965	Jan. 4, 1965	16.97	3,620				
	Jan. 26, 1965	15.67	1,430				
	Mar. 20, 1965	15.90	1,530				
	Apr. 6, 1965	15.97	1,600				
	Sept. 20, 1965	16.64	2,900				

SLOUGH CREEK BASIN

6-9066. Burge Branch near Arrow Rock, Mo.

Location.--Lat 39°02'45", long 92°56'35", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.1, T.49 N., R.19 W., on right bank just upstream from culvert under county road about 1 $\frac{1}{2}$ miles south of Arrow Rock.

Drainage area.--0.33 sq mi. Slope.--76.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 5 cfs and by indirect measurements at 90 and 97 cfs.

Remarks.--Base for partial-duration series, 25 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 4, 1959	-	20	1962	Mar. 20, 1962	3.24	40.0
	Mar. 27, 1960	2.44	12.3		Aug. 4, 1962	3.31	43.6
	May 6, 1960	3.23	39.5	1963	Aug. 9, 1963	3.78	20.8
	July 1, 1960	3.38	47.8				
1961	Nov. 15, 1960	3.63	64	1964	Apr. 5, 1964	3.92	27.0
	Mar. 7, 1961	4.17	112				
	May 5, 1961	3.38	47.8	1965	June 3, 1965	5.75	90
	July 5, 1961	2.98	28.7		June 3, 1965	6.01	95
	July 25, 1961	3.46	53		June 4, 1965	5.80	91
	Sept. 13, 1961	4.38	134		June 29, 1965	4.11	36.5
1962	Oct. 30, 1961	3.18	37.1		July 14, 1965	5.82	91
		3.39	48.4		July 15, 1965	7.00	115
					July 19, 1965	4.15	38.5

LAMINE RIVER BASIN

6-9067. Flat Creek near Sedalia, Mo.

Location.--Lat 38°39'35", long 93°15'10", in NW¼SE¼ sec.20, T.45 N., R.21 W., on downstream side of left pier of bridge on U. S. Highway 65, 1 mile upstream from Spring Fork, and 1½ miles south of Sedalia.

Drainage area.--148 sq mi. Slope.--8.1 ft per mi.

Gage.--Recording. Altitude of gage is 765 ft (from topographic map).

Stage-discharge relation.--Defined below 9,300 cfs by current-meter measurement.

Remarks.--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Feb. 10, 1959	12.70	6,180	1960	Mar. 27, 1960	13.9	7,350
	Mar. 5, 1959	9.85	3,840		Apr. 16, 1960	16.7	12,200
1960	Mar. 27, 1960	13.9	7,350		Apr. 17, 1960	11.1	4,880
	Apr. 16, 1960	16.7	12,200		May 6, 1960	16.6	11,900
	Apr. 17, 1960	11.1	4,880	1961	Mar. 12, 1961	9.70	3,760
	May 6, 1960	16.6	11,900		Apr. 9, 1961	9.60	3,560
1961	Mar. 12, 1961	9.70	3,760		May 6, 1961	16.80	11,700
	Apr. 9, 1961	9.60	3,560		May 8, 1961	15.95	9,950
	May 6, 1961	16.80	11,700		July 25, 1961	11.00	4,610
	May 8, 1961	15.95	9,950		Aug. 2, 1961	16.65	11,300
	July 25, 1961	11.00	4,610		Sept. 13, 1961	17.80	14,100
	Aug. 2, 1961	16.65	11,300	1962	Nov. 2, 1961	13.82	7,250
	Sept. 13, 1961	17.80	14,100		Nov. 16, 1961	10.91	4,720
1962	Nov. 2, 1961	13.82	7,250		Mar. 20, 1962	16.25	10,900
	Nov. 16, 1961	10.91	4,720	1963	Mar. 4, 1963	11.45	5,120
	Mar. 20, 1962	16.25	10,900		June 21, 1963	10.46	4,400
1963	Mar. 4, 1963	11.45	5,120		Sept. 7, 1963	10.35	4,320
	June 21, 1963	10.46	4,400	1964	Apr. 5, 1964	14.25	7,670
	Sept. 7, 1963	10.35	4,320		Apr. 21, 1964	13.10	6,550
1964	Apr. 5, 1964	14.25	7,670		Apr. 23, 1964	13.25	6,650
	Apr. 21, 1964	13.10	6,550		May 28, 1964	12.12	5,680
	Apr. 23, 1964	13.25	6,650		June 14, 1964	16.30	11,100
	May 28, 1964	12.12	5,680	1965	Mar. 17, 1965	11.10	4,690
	June 14, 1964	16.30	11,100		Apr. 3, 1965	10.15	4,010
1965	Mar. 17, 1965	11.10	4,690		Apr. 5, 1965	12.35	5,760
	Apr. 3, 1965	10.15	4,010		July 1, 1965	15.50	9,080
	Apr. 5, 1965	12.35	5,760		July 20, 1965	14.5	7,730
	July 1, 1965	15.50	9,080		Aug. 24, 1965	9.81	3,710
	July 20, 1965	14.5	7,730		Aug. 27, 1965	10.15	4,010
	Aug. 24, 1965	9.81	3,710		Sept. 4, 1965	15.20	8,630
	Aug. 27, 1965	10.15	4,010		Sept. 21, 1965	12.0	5,420
	Sept. 4, 1965	15.20	8,630				
	Sept. 21, 1965	12.0	5,420				

LAMINE RIVER BASIN

6-9070. Lamine River at Clifton City, Mo.

Location.--Lat 38°45'20", long 93°01'10", in NW¼ sec.16, T.46 N., R.19 W., at left end of county highway bridge, 300 ft upstream from Missouri-Kansas-Texas Railroad bridge, three-quarters of a mile east of Clifton City, and 8 miles downstream from Otter Creek.

Drainage area.--598 sq mi. Slope.--3.6 ft per mi.

Gage.--Nonrecording prior to Sept. 3, 1958, recording gage thereafter. Datum of gage is 621.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 30,000 cfs.

Bankfull stage.--15 ft.

Historical data.--Maximum stage known, 35.3 ft Sept. 18, 1905 (discharge, about 90,000 cfs).

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Sept. 18, 1905	35.3	a90,000	1941	Apr. 20, 1941	26.5	18,600
1907	Jan. 20, 1907	33.2	a70,000	1942	Oct. 5, 1941	27.00	19,800
1922	Apr. 8, 1922	31.5	a55,000		Oct. 31, 1941	27.5	21,400
1923	July 4, 1923	19.9	9,300		Mar. 17, 1942	21.52	10,300
1924	June 25, 1924	18.85	7,640		June 27, 1942	24.70	14,700
1925	Mar. 19, 1925	20.60	10,100	1943	Dec. 28, 1942	26.00	17,200
1926	Sept. 10, 1926	21.64	11,300		May 8, 1943	24.00	13,600
1927	Mar. 20, 1927	27.40	22,700		May 18, 1943	32.0	60,000
	Apr. 1, 1927	27.85	25,000		June 5, 1943	21.80	10,700
	Apr. 13, 1927	22.70	12,500	1944	Apr. 11, 1944	28.00	25,000
	May 8, 1927	22.02	11,700		Apr. 23, 1944	29.0	32,500
1928	Oct. 3, 1927	18.11	7,620	1945	Apr. 17, 1945	24.0	12,200
1929	Nov. 18, 1928	22.60	12,400		June 11, 1945	23.6	11,800
	Apr. 10, 1929	23.50	13,600	1946	Jan. 7, 1946	21.80	10,000
	May 3, 1929	24.35	14,800		May 11, 1946	25.5	14,500
	May 13, 1929	27.60	23,800		Aug. 15, 1946	23.40	11,600
	May 19, 1929	29.00	33,000	1947	Mar. 14, 1947	22.01	10,200
	June 4, 1929	24.62	15,100		Apr. 11, 1947	23.32	11,500
1930	Feb. 7, 1930	17.60	7,260		Apr. 26, 1947	25.4	14,300
1931	Sept. 25, 1931	19.10	8,500	1948	June 19, 1948	28.14	25,600
1932	Nov. 23, 1931	21.65	11,200		June 23, 1948	29.0	32,500
1933	Dec. 25, 1932	26.10	17,800	1949	Jan. 24, 1949	22.6	10,800
	May 14, 1933	21.80	11,500		June 7, 1949	24.2	12,400
1934	Sept. 29, 1934	14.12	5,190		June 9, 1949	23.6	11,800
1935	Nov. 23, 1934	21.40	11,000	1950	Dec. 22, 1949	23.5	11,700
	May 29, 1935	26.38	18,600		May 31, 1950	23.0	11,200
	June 2, 1935	26.19	18,000		June 4, 1950	24.0	12,200
	June 21, 1935	22.36	12,200	1951	Feb. 21, 1951	24.25	12,400
	June 27, 1935	27.76	25,000		June 25, 1951	23.0	11,200
1936	Nov. 5, 1935	23.20	13,200		June 29, 1951	32.5	65,500
	Sept. 29, 1936	22.93	12,800		July 4, 1951	22.0	10,200
1937	Mar. 20, 1937	22.00	11,700		July 7, 1951	28.85	30,900
	May 4, 1937	21.95	11,700		July 13, 1951	24.4	12,700
	May 23, 1937	27.30	22,200		Sept. 10, 1951	23.0	11,200
	June 10, 1937	22.20	11,900		Sept. 13, 1951	22.0	10,200
	June 17, 1937	22.80	12,700	1952	Nov. 13, 1951	21.50	9,750
1938	May 24, 1938	25.5	16,600	1953	Mar. 4, 1953	16.00	5,360
1939	Apr. 16, 1939	29.86	40,200	1954	May 2, 1954	13.30	3,830
	May 9, 1939	21.57	11,200	1955	Aug. 31, 1955	20.71	8,260
1940	June 12, 1940	13.5	4,280	1956	Oct. 7, 1955	25.70	14,000
				1957	May 26, 1957	18.66	6,740
				1958	Mar. 10, 1958	22.9	10,100
					July 21, 1958	28.1	25,500

LAMINE RIVER BASIN

Peak stages and discharges of Lamine River at Clifton City, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Feb. 11, 1959	22.82	9,980	1963	May 26, 1963	17.55	5,990
1960	Apr. 17, 1960	26.3	15,800	1964	Apr. 6, 1964	24.20	11,300
	May 6, 1960	28.5	28,700		June 15, 1964	27.75	23,200
1961	May 6, 1961	27.17	19,400	1965	Sept. 5, 1965	27.30	19,900
	May 9, 1961	25.30	13,100		Sept. 22, 1965	24.90	12,300
	Sept. 15, 1961	29.51	11,700				
1962	Mar. 21, 1962	27.02	18,400				

a Annual peak only.

LAMINE RIVER BASIN

6-9072. Shaver Creek tributary near Clifton City, Mo.

Location.--Lat 38°45'29", long 93°04'25", in NE¼SE¼ sec.13, T.46 N., R.20 W., on left bank just upstream from culvert under State Highway 135, 2 miles southwest of Clifton City, and 9.5 miles northeast of Sedalia.

Drainage area.--1.65 sq mi. Slope.--46.4 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Oct. 18, 1961 to Apr. 16, 1964. Datum of gage is 759.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 107 cfs and by indirect measurements at 187, 480, and 1,230 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 30, 1955	11.68	1,230				
1956	May 29, 1956	8.13	370				
1957	June 29, 1957	8.26	390				
1958	July 19, 1958	11.85	1,600				
1959	Jan. 21, 1959	8.13	370				
1960	July 1, 1960	11.20	a850				
1961	May 5, 1961	11.38	966				
1962	Nov. 15, 1961	7.05	250				
1963	May 25, 1963	8.36	406				
1964	June 13, 1964	10.41	625				
1965	June 4, 1965	11.65	1,200				

a Revised.

LAMINE RIVER BASIN

6-9075. South Fork Blackwater River near Elm, Mo.
(Published as "East Branch South Fork Blackwater River" prior to 1964)

Location.--Lat 38°49'05", long 94°02'05", in SW¼SE¼ sec.5, T.46 N., R.28 W., on left bank at downstream side of bridge on county highway, 2½ miles southeast of Elm, and 3 miles upstream from mouth.

Drainage area.--16.4 sq mi. Slope.--22.2 ft per mi.

Gage.--Recording gage and concrete control. Datum of gage is about 795 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 600 cfs and by indirect measurement at 5,600 cfs.

Bankfull stage.--7.0 ft.

Historical data.--Flood of July 1951, reached a stage of 14.8 ft, from information by local residents.

Remarks.--Base for partial-duration series, 1,100 cfs.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Discharge (cfs)
1951	July	1951	14.8	-	1961	Mar. 26, 1961	2,500
						Apr. 23, 1961	1,130
1954	May	2, 1954	6.68	a1,420		May 5, 1961	2,840
						July 24, 1961	2,020
1955	May	27, 1955	8.50	2,380		July 25, 1961	1,650
						Sept. 13, 1961	5,270
1956	Apr.	28, 1956	3.92	447			
					1962	Nov. 15, 1961	1,460
1957	Sept.	21, 1957	6.68	1,420			
					1963	May 26, 1963	1,330
1958	Oct.	23, 1957	8.01	2,080			
	July	17, 1958	6.02	1,130	1964	Apr. 5, 1964	1,460
	July	25, 1958	6.41	1,290			
	July	31, 1958	b8.56	2,440	1965	June 13, 1965	1,130
						June 19, 1965	4,610
1959	Aug.	31, 1959	6.55	1,380		Aug. 8, 1965	1,210
						Sept. 4, 1965	1,860
1960	Apr.	15, 1960	12.0	5,600		Sept. 20, 1965	2,020
	Apr.	30, 1960	8.39	2,320			
	May	6, 1960	8.08	2,140			

a Annual peak only.
b Revised.

LAMINE RIVER BASIN

6-9077. Blackwater River at Valley City, Mo.

Location.--Lat 38°52'10", long 93°37'15", in SW¼NW¼ sec.13, T.47 N., R.25 W., at right bank at downstream side of bridge on County Highway E, 0.5 mile upstream from Blackjack Creek, 0.5 mile northwest of Valley City, and 1 mile downstream from Clear Creek.

Drainage area.--547 sq mi. Slope.--5.05 ft per mi.

Gage.--Recording. Datum of gage is 650.23 ft above mean sea level, datum of 1929. Auxiliary recording gage 4½ miles downstream since Oct. 11, 1961, at datum 2.75 ft lower.

Stage-discharge relation.--Defined below 58,100 cfs by current-meter measurement.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	May 22, 1959	22.92	5,750				
1960	Mar. 27, 1960	26.25	12,900				
	Apr. 16, 1960	30.4	66,500				
	Apr. 30, 1960	26.75	15,900				
	May 6, 1960	27.70	20,900				
1961	Mar. 13, 1961	26.2	10,200				
	Mar. 27, 1961	26.3	10,500				
	Apr. 9, 1961	26.6	11,700				
	May 6, 1961	28.5	23,500				
	July 26, 1961	27.2	14,700				
	Sept. 4, 1961	26.25	10,200				
	Sept. 14, 1961	31.1	55,000				
	Sept. 25, 1961	26.7	12,200				
1962	Oct. 30, 1961	26.22	11,900				
	Nov. 3, 1961	26.80	15,500				
	Nov. 16, 1961	26.65	14,300				
	Mar. 21, 1962	27.60	20,900				
1963	Oct. 13, 1962	24.50	7,000				
1964	June 14, 1964	25.80	9,800				
1965	Apr. 6, 1965	26.00	10,700				
	June 5, 1965	26.85	15,500				
	June 13, 1965	25.90	10,200				
	July 20, 1965	31.15	57,000				
	Sept. 5, 1965	26.70	14,900				
	Sept. 16, 1965	26.30	12,500				
	Sept. 20, 1965	26.50	13,700				

LAMINE RIVER BASIN

6-9080. Blackwater River at Blue Lick, Mo.

Location.--Lat 38°59'30", long 93°12'15", on line between secs.27 and 34, T.49 N., R.21 W., on right bank, 25 ft upstream from bridge on U. S. Highway 65, three-quarters of a mile downstream from Finney Creek, and 1 mile south of Blue Lick.

Drainage area.--1,120 sq mi, approximately. Slope.--2.50 ft per mi.

Gage.--Nonrecording prior to Dec. 4, 1956; recording gage thereafter. At site 75 ft downstream at datum 0.10 ft lower prior to July 25, 1925. At site 25 ft downstream at present datum July 25, 1925, to Sept. 30, 1933, and May 23, 1938, to Dec. 3, 1956. Datum of gage is 593.79 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 32,000 cfs and extended by logarithmic plotting.

Bankfull stage.--25 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1905	Sept.	1905	36	a26,000	1945	June 10,	1945	31.85	12,600
1923	July 4,	1923	30.9	9,280	1946	Jan. 8,	1946	31.3	11,300
1924	June 30,	1924	29.05	10,800	1947	Mar. 16,	1947	30.76	10,200
1925	June 19,	1925	24.10	7,060		Apr. 7,	1947	31.9	12,900
						July 3,	1947	31.09	10,800
1926	Apr. 8,	1926	28.05	10,000	1948	June 25,	1948	32.80	15,600
1927	Mar. 22,	1927	32.01	17,400	1949	June 10,	1949	30.6	9,760
	Apr. 3,	1927	31.0	15,400					
	Apr. 16,	1927	30.25	14,000	1950	Oct. 23,	1949	32.0	13,200
	Apr. 21,	1927	28.95	11,800					
	May 9,	1927	30.68	14,900	1951	July 1,	1951	-	18,000
						July 8,	1951	34.2	20,400
1928	Oct. 4,	1927	34.17	21,800		July 14,	1951	35.06	23,900
	Feb. 9,	1928	28.60	11,200		Aug. 29,	1951	31.06	10,800
1929	Nov. 18,	1928	41.25	54,000	1952	Nov. 15,	1951	28.48	7,100
	Apr. 2,	1929	31.30	16,000					
	Apr. 11,	1929	30.00	13,600	1953	Apr. 3,	1953	27.16	5,880
	May 14,	1929	32.10	17,600					
	May 21,	1929	30.10	13,800	1954	June 4,	1954	22.90	3,290
	June 5,	1929	31.19	15,800					
1930	Feb. 10,	1930	26.42	7,990	1955	Feb. 22,	1955	26.45	5,170
					1956	Oct. 10,	1955	24.40	3,960
1931	Sept. 24,	1931	18.77	3,200	1957	June 29,	1957	22.25	3,150
1932	Nov. 26,	1931	27.85	9,680	1958	June 18,	1958	28.95	8,100
1933	May 14,	1933	25.88	6,900	1959	Mar. 5,	1959	22.80	3,570
1938	May 25,	1938	34.18	19,600	1960	Apr. 19,	1960	33.0	16,200
1939	Apr. 18,	1939	29.6	9,810		May 9,	1960	30.7	10,600
1940	Apr. 20,	1940	25.0	5,300	1961	May 9,	1961	33.5	17,800
1941	Jan. 28,	1941	23.8	3,800		Sept. 16,	1961	36.5	30,000
					1962	Mar. 23,	1962	30.83	10,800
1942	June 23,	1942	31.83	12,400	1963	May 29,	1963	22.84	3,450
	June 29,	1942	32.2	13,400	1964	June 21,	1964	25.84	5,310
1943	May 20,	1943	36.45	27,900	1965	July 23,	1965	37.50	26,000
1944	Mar. 18,	1944	31.50	12,600		Sept. 18,	1965	31.04	10,400
	Apr. 13,	1944	32.50	15,300					
	Apr. 24,	1944	37.0	32,400					

a Annual peak only.

LAMINE RIVER BASIN

6-9083. Trent Branch near Waverly, Mo.

Location.--Lat 39°12'06", long 93°34'46", in SE¼NE¼ sec.19, T.51 N., R.24 W., on right bank just upstream from culvert on U. S. Highway 24, and 3.8 miles west of Waverly.

Drainage area.--0.97 sq mi. Slope.--69.2 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage July 23, 1959, to July 18, 1962.

Stage-discharge relation.--Defined by current-meter measurement at 21.5 cfs and by indirect measurements at 282, 544, 878, and 1,190 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	15.76	544				
1956	Apr. 28, 1956	18.16	878				
1957	June 30, 1957	14.17	370				
1958	June 14, 1958	16.59	660				
1959	July 4, 1959	13.46	282				
1960	June 30, 1960	14.95	450				
1961	Aug. 1, 1961	19.87	1,190				
1962	Sept. 8, 1962	13.80	320				
1963	July 15, 1963	13.55	290				
1964	June 21, 1964	13.91	330				
1965	Nov. 16, 1964	12.80	220				

LAMINE RIVER BASIN

6-9085. Shiloh Branch near Marshall, Mo.

Location.--Lat 39°07'00", long 93°05'50", in NW¼ sec.15, T.50 N., R.20 W., on left bank 15 ft upstream from double culvert under State Highway 41, 08 mile upstream from unnamed tributary, 2.5 miles upstream from Salt Branch, 3.6 miles upstream from mouth and 5½ miles east of Marshall.

Drainage area.--2.87 sq mi. Slope.--40.1 ft per mi.

Gage.--Recording gage and concrete control. Datum of gage is 677.39 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 200 cfs and indirect measurements at 713 and 873 cfs.

Bankfull stage.--7.0 ft.

Remarks.--Base for partial-duration series, 400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Mar. 31, 1953	1.90	145	1961	Mar. 27, 1961	3.13	424
					Apr. 24, 1961	3.26	455
1954	Aug. 1, 1954	5.64	741		May 6, 1961	3.22	440
					July 23, 1961	4.84	653
1955	Feb. 18, 1955	3.26	455		July 25, 1961	4.53	618
	May 28, 1955	4.84	653		Aug. 1, 1961	3.79	527
	June 2, 1955	6.92	871		Sept. 13, 1961	7.58	934
	Aug. 29, 1955	3.61	499				
				1962	Oct. 30, 1961	2.97	400
1956	Oct. 5, 1955	2.60	336		Sept. 8, 1962	3.14	424
1957	June 29, 1957	3.63	499	1963	May 4, 1963	2.90	391
1958	June 14, 1958	3.13	424	1964	Apr. 20, 1964	4.92	664
	July 3, 1958	6.65	842				
	July 15, 1958	7.04	880	1965	July 14, 1965	6.00	782
1959	Sept. 23, 1959	4.56	630		Sept. 15, 1965	7.2	898
1960	Oct. 4, 1959	3.47	485				
	Mar. 27, 1960	4.11	424				
	Apr. 29, 1960	3.14	424				
	May 6, 1960	4.78	653				
	July 1, 1960	4.31	594				

MISSOURI RIVER MAIN STEM

6-9090. Missouri River at Boonville, Mo.

Location.--Lat 38°58'40", long 92°45'15", in sec.35, T.49 N., R.17 W., on downstream side of second pier from right abutment of Missouri-Kansas-Texas Railroad bridge at Boonville, and at mile 196.6.

Drainage area.--505,700 sq mi.

Gage.--Nonrecording prior to May 10, 1931; recording gage thereafter. At site 0.4 mile downstream at datum 3.14 ft lower prior to Oct. 1, 1928, and at different datum May 10, 1931, to Apr. 12, 1934. At site 50 ft upstream at present datum Oct. 1, 1928, to May 9, 1931. Datum of gage is 565.42 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, must be defined by frequent current-meter measurements.

Bankfull stage.--21 ft.

Historical data.--Flood of June 21, 1844, reached a stage of 32.7 ft (discharge, about 710,000 cfs, computed by Corps of Engineers). Flood of June 6, 1903, reached a stage of 30.5 ft (discharge, about 612,000 cfs, computed by Corps of Engineers).

Remarks.--Gage heights adjusted to present datum. Drainage basin above station contains many reservoirs with total usable capacity in excess of 27,640,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 21, 1844	32.7	a710,000	1946	Jan. 10, 1946	17.44	150,000
1903	June 6, 1903	30.5	a612,000	1947	June 27, 1947	32.02	448,000
1926	Sept. 25, 1926	17.4	175,000	1948	Mar. 24, 1948	24.20	247,000
1927	Apr. 23, 1927	23.9	381,000	1949	Mar. 9, 1949	21.15	196,000
1928	June 20, 1928	19.6	224,000	1950	July 20, 1950	21.30	209,000
1929	June 7, 1929	23.7	344,000	1951	July 17, 1951	32.62	550,000
1930	May 11, 1930	16.2	150,000	1952	Apr. 27, 1952	27.70	360,000
1931	June 10, 1931	12.8	79,200	1953	May 8, 1953	17.90	150,000
1932	Nov. 28, 1931	21.5	221,000	1954	June 5, 1954	16.98	132,000
1933	June 4, 1933	14.9	105,000	1955	Feb. 21, 1955	16.80	128,000
1934	Mar. 9, 1934	12.2	77,000		June 27, 1955	16.80	128,000
1935	June 4, 1935	26.7	306,000	1956	July 6, 1956	14.40	89,200
1936	Mar. 14, 1936	15.4	134,000	1957	June 20, 1957	19.12	145,000
1937	July 25, 1937	15.70	123,000	1958	July 22, 1958	25.77	252,000
1938	July 19, 1938	18.10	142,000	1959	June 2, 1959	21.40	175,000
1939	Apr. 18, 1939	20.00	170,000	1960	Apr. 5, 1960	28.15	332,000
1940	Aug. 17, 1940	13.44	76,700	1961	Sept. 16, 1961	26.30	267,000
1941	June 17, 1941	22.40	201,000	1962	Nov. 4, 1961	20.90	200,000
1942	June 29, 1942	27.50	312,000	1963	May 17, 1963	15.95	118,000
1943	June 22, 1943	28.82	366,000	1964	June 25, 1964	21.70	184,000
1944	Apr. 27, 1944	30.93	504,000	1965	Sept. 24, 1965	b26.05	261,000
1945	Apr. 20, 1945	-	280,000				
	June 21, 1945	25.25	-				

a Computed by Corps of Engineers

b Occurred July 23, 1965

BONNE FEMME CREEK BASIN

6-9094. Cottonwood Creek tributary at Estill, Mo.

Location--Lat 39°02'55", long 92°44'38", in NW¼SE¼NE¼ sec.17, T.49 N., R.16 W., on right bank just upstream from culvert under State Highway 5, 0.2 mile north of Estill, and 2 miles north of New Franklin.

Drainage area--0.30 sq mi. Slope--87.0 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by indirect measurements at 70.2 and 265 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)
1958	July	3, 1958	15.92	265			
1959	Sept.	24, 1959	6.55	71			
1960	June	30, 1960	6.37	68			
1961	May	5, 1961	8.52	112			
1962	July	6, 1962	5.62	48			
1963	Aug.	19, 1963	5.84	55			
1964	Apr.	5, 1964	5.33	41			
1965	Sept.	15, 1965	7.35	90			

MONITEAU CREEK BASIN

6-9095. Moniteau Creek near Fayette, Mo.

Location--Lat 39°07'15", long 92°33'40", in SE¼SE¼ sec.14, T.50 N., R.15 W., on right bank just upstream from county highway bridge, 1 mile downstream from Hungry Mother Creek, 7½ miles east of Fayette, and 15 miles upstream from mouth.

Drainage area--81 sq mi, approximately. Slope--8.47 ft per mi.

Gage--Nonrecording prior to Aug. 14, 1957; recording gage thereafter. Datum of gage is 607.93 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--15 ft.

Historical data--Maximum stage known, 22.9 ft, probably in April 1944, from information by local resident.

Remarks--Base for partial-duration series, 900 cfs.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1944	Apr.	1944	22.9	-	1957	July 27,	1957	17.50	2,520
1949	Jan. 16,	1949	16.5	1,750	1958	Dec. 25,	1957	14.4	1,240
	Jan. 24,	1949	14.5	1,080		Feb. 27,	1958	15.9	1,780
	Feb. 13,	1949	14.4	1,060		June 1,	1958	13.53	999
	May 9,	1949	14.0	964		June 15,	1958	15.65	1,660
	May 24,	1949	13.98	964		July 15,	1958	18.75	3,370
	June 1,	1949	18.16	2,570		July 19,	1958	14.73	1,340
1950	Oct. 21,	1949	18.09	2,510	1958	July 20,	1958	17.54	2,520
	Dec. 22,	1949	18.48	2,760		July 31,	1958	17.90	2,740
	Jan. 13,	1950	14.10	986		1959	Feb. 10,	1959	18.20
	Feb. 13,	1950	13.75	924	Mar. 5,		1959	18.05	2,800
	June 3,	1950	17.08	2,000	Apr. 20,		1959	14.10	1,160
	July 19,	1950	13.82	924	1960	Mar. 27,	1960	17.72	2,640
1951	Feb. 20,	1951	17.50	2,180		Apr. 16,	1960	18.39	3,050
	Mar. 17,	1951	17.54	2,180		Apr. 30,	1960	13.30	950
	Mar. 29,	1951	18.06	2,510	May 6,	1960	18.96	3,560	
	June 26,	1951	16.10	1,600	July 1,	1960	18.43	3,050	
	July 11,	1951	18.0	2,450	1961	Mar. 12,	1961	(a)	(a)
	Aug. 9,	1951	14.8	1,160		Apr. 25,	1961	(a)	(a)
Aug. 15,	1951	14.0	964	May 6,		1961	18.70	3,200	
1952	Nov. 12,	1951	17.83	2,400		May 8,	1961	16.45	1,760
	Mar. 10,	1952	16.64	1,790		July 23,	1961	16.40	1,760
	Mar. 18,	1952	17.30	2,080		July 25,	1961	15.20	1,330
	Apr. 23,	1952	14.00	964	Aug. 2,	1961	17.50	2,280	
	Aug. 21,	1952	14.10	986	Sept. 13,	1961	19.6	4,330	
	Sept. 24,	1961	17.65	2,340	1962	Oct. 30,	1961	17.10	2,080
1953	May 5,	1953	11.42	593		Nov. 2,	1961	17.56	2,340
Nov. 16,	1961	17.57	2,340						
1954	May 21,	1954	15.4	1,350	Mar. 21,	1962	18.05	2,600	
1955	Feb. 19,	1955	16.7	1,850	1963	Mar. 4,	1963	15.34	1,360
	June 25,	1955	19.2	3,760		1964	Apr. 21,	1964	16.77
	July 6,	1955	17.9	2,530	Mar. 17,		1965	16.60	1,850
	Aug. 30,	1955	17.5	2,290	Apr. 3,	1965	13.33	910	
1956	Oct. 5,	1955	19.47	4,180	Apr. 6,	1965	16.77	1,940	
	Apr. 29,	1956	16.72	1,900	Apr. 11,	1965	14.90	1,240	
	May 27,	1956	16.50	1,800	June 5,	1965	17.95	2,600	
1957	May 17,	1957	15.8	1,740	Sept. 16,	1965	17.34	2,180	
	May 25,	1957	16.8	2,170	Sept. 20,	1965	15.07	1,300	
	June 14,	1957	14.9	1,400					
	June 30,	1957	15.0	1,440					

a Gage height and discharge unknown.

PETITE SALINE CREEK BASIN

6-9097. Petite Saline Creek tributary near Bellair, Mo.

Location--Lat 38°50'34", long 92°50'31", in SW¼NE¼ sec.13, T.47 N., R.18 W., on right bank just upstream from culvert under State Highway 5, at junction of Highways 5 and F, half a mile north of Bellair, and 10½ miles southwest of Boonville.

Drainage area--0.49 sq mi. Slope--78.4 ft per mi.

Gage--Crest-stage gage; supplemental recording gage since Apr. 17, 1964.

Stage-discharge relation--Defined by current-meter measurements below 56.6 cfs and by indirect measurements at 237 and 573 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 7, 1955	14.43	237				
1956	July 23, 1956	13.30	118				
1957	May 16, 1957	13.32	119				
1958	July 16, 1958	14.54	248				
1959	July 30, 1959	13.22	108				
1960	May 6, 1960	14.19	210				
1961	May 5, 1961	17.25	573				
1962		(a)	(b)				
1963	Apr. 28, 1963	13.64	150				
1964	June 14, 1964	13.14	95				
1965	June 4, 1965	19.49	900				

a Stage did not reach gage during year.

b Less than 100 cfs.

PETITE SALINE CREEK BASIN

6-9100. Petite Saline Creek near Boonville, Mo.

Location.--Lat 38°55'00", long 92°39'20", in SW¼SE¼ sec.15, T.48 N., R.16 W., on right bank 50 ft upstream from county highway bridge, half a mile downstream from Clarks Fork Creek, 7 miles southeast of Boonville, and 14½ miles upstream from mouth.

Drainage area.--182 sq mi. Slope.--6.35 ft per mi.

Gage.--Nonrecording prior to July 26, 1952; recording and nonrecording thereafter. Datum of gage is 573.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--17 ft.

Historical data.--Maximum stage known prior to 1949, 23.2 ft in June 1921 (discharge, 5,860 cfs).

Remarks.--Base for partial-duration series, 1,600 cfs.

		Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1921	June	1921	23.2	5,860	1957	May	26, 1957	17.98	1,560
1949	Nov.	3, 1948	18.9	2,530	1958	Feb.	28, 1958	18.90	2,170
	Jan.	15, 1949	17.8	1,800		Mar.	10, 1958	18.40	1,790
	Jan.	24, 1949	18.3	2,110		May	5, 1958	18.83	2,040
	June	7, 1949	19.1	2,670		June	15, 1958	20.74	3,700
	Sept.	13, 1949	22.26	5,110		July	18, 1958	19.10	2,340
1950					1959	July	31, 1958	19.50	2,680
	Oct.	21, 1949	23.50	6,120		Feb.	10, 1959	19.16	2,420
	Dec.	21, 1949	20.90	4,000	1960	Mar.	5, 1959	20.30	3,360
	Apr.	29, 1950	17.20	1,610		Mar.	28, 1960	19.70	2,980
	May	31, 1950	19.82	3,170		Apr.	17, 1960	20.85	3,860
	June	3, 1950	23.42	6,030		Apr.	30, 1960	17.82	1,600
	Aug.	14, 1950	18.00	1,910		May	6, 1960	23.10	5,810
	Aug.	16, 1950	18.05	1,910					
1951	Feb.	20, 1951	19.3	2,810	1961	Mar.	13, 1961	18.20	1,880
	Mar.	11, 1951	18.25	2,040		Apr.	26, 1961	19.37	2,740
	Mar.	17, 1951	21.48	4,470		May	6, 1961	21.60	4,500
	Apr.	13, 1951	17.97	1,910		May	9, 1961	20.70	3,780
	May	11, 1951	17.2	1,610		July	6, 1961	22.07	4,910
	June	25, 1951	18.4	2,180		July	22, 1961	19.60	2,900
	June	29, 1951	22.8	5,520		July	25, 1961	18.55	2,140
	July	7, 1951	20.2	3,470		Sept.	14, 1961	22.20	5,000
	July	12, 1951	20.0	3,320		Sept.	25, 1961	19.43	2,740
	Aug.	29, 1951	20.6	3,770	1962	Oct.	30, 1961	18.10	1,820
	Sept.	4, 1951	18.55	2,320		Nov.	3, 1961	18.76	2,280
	Sept.	10, 1951	17.48	1,680		Nov.	16, 1961	18.70	2,210
	Sept.	13, 1951	17.34	1,630		Jan.	26, 1962	18.45	2,000
1952					1963	Mar.	21, 1962	21.00	4,020
	Nov.	13, 1951	18.40	2,180		July	8, 1963	18.26	1,940
	Feb.	4, 1952	17.66	1,750	1964	Apr.	5, 1964	19.54	2,820
	Mar.	11, 1952	18.10	1,980		June	15, 1964	20.00	3,220
	Mar.	18, 1952	19.10	2,670					
1953	Aug.	21, 1952	19.18	2,740					
	Apr.	8, 1953	17.35	1,610					
1954	June	2, 1954	17.01	1,460	1965	Mar.	17, 1965	17.72	1,620
1955					1965	Apr.	6, 1965	18.51	2,070
	Jan.	5, 1955	17.58	1,690		Apr.	11, 1965	18.41	2,000
	Feb.	20, 1955	18.05	1,910		June	3, 1965	19.35	2,740
	June	25, 1955	17.95	1,910		June	5, 1965	21.95	4,840
	Aug.	7, 1955	18.73	1,840		Sept.	5, 1965	18.62	2,140
1956	Aug.	31, 1955	20.30	2,960		Sept.	16, 1965	18.52	2,070
	Oct.	6, 1955	21.52	3,980		Sept.	22, 1965	18.18	1,880

PERCHE CREEK BASIN

6-9102. Cow Branch near Columbia, Mo.

Location.--Lat 39°00'10", long 92°19'25", in NW¼ sec.30, T.49 N., R.12 W., on left bank just upstream from culvert under U. S. Highway 63, 2.7 miles north of Columbia.

Drainage area.--1.01 sq mi. Slope.--57.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 2.57 cfs and by indirect measurements at 374 and 620 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	11.68	374				
1956	Oct. 4, 1955	12.02	430				
1957	July 27, 1957	11.43	336				
1958	July 18, 1958	13.13	625				
1959	Nov. 16, 1958	11.19	300				
1960	May 6, 1960	13.09	620				
1961	May 5, 1961	12.89	582				
1962	Oct. 30, 1961	9.55	100				
1963	July 2, 1963	9.62	110				
1964	Apr. 5, 1964	11.19	300				
1965	Sept. 15, 1965	11.59	360				

BONNE FEMME CREEK BASIN

6-9102.5. Traxler Branch near Columbia, Mo.

Location.--Lat 38°51'15", long 92°19'45", in NE¼SE¼ sec.13, T.47 N., R.13 W., on left bank just upstream from culvert under county road N about 5½ miles south of Columbia.

Drainage area.--0.55 sq mi. Slope.--119 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Aug. 15, 1960 to Apr. 27, 1964.

Stage-discharge relation.--Defined by current-meter measurements below 416 cfs and by indirect measurements at 112, 419, and 668 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 18, 1958	14.97	668				
1959	Feb. 9, 1959	11.01	a266				
1960	May 25, 1960	12.60	419				
1961	May 5, 1961	12.01	a361				
1962	Nov. 15, 1961	10.03	180				
1963	July 6, 1963	9.10	104				
1964	June 14, 1964	9.58	142				
1965	Apr. 5, 1965	12.20	380				

a Revised.

PEDEN BRANCH BASIN

6-9103. Peden Branch near Jefferson City, Mo.

Location.--Lat 38°38'55", long 92°18'30, in NW¼SW¼ sec.13, T.45 N., R.13 W., 8 ft upstream from concrete culvert on Cole County road "A", 2 miles northwest of Church State Prison Farm, and 8.6 miles west of Jefferson City.

Drainage area.--0.18 sq mi. Slope.--220 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 48.4, 49.6, and 142 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Aug. 16, 1957	13.26	144				
1958	June 25, 1958	13.21	140				
1959	Feb. 9, 1959	11.66	50				
1960	Oct. 10, 1959	13.24	140				
1961	Aug. 9, 1961	12.99	128				
1962	Oct. 30, 1961	11.48	45				
1963	May 16, 1963	12.10	73				
1964	Apr. 23, 1964	11.26	35				
1965	Sept. 4, 1965	13.09	130				

BALDWIN BRANCH BASIN

6-9104. Baldwin Branch near Jefferson City, Mo.

Location.--Lat 38°39'35", long 92°13'25", in SE¼SE¼ sec.24, T.45 N., R.12 W., on right bank just upstream from culvert on U. S. Highway 63, 5.4 miles northwest of Jefferson City.

Drainage area.--0.60 sq mi. Slope.--144 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurement at 60.6 cfs and by indirect measurements at 360, 421, 707, and 1,580 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Aug. 16, 1957	16.10	1,580				
1958	July 18, 1958	13.84	690				
1959	Oct. 9, 1958	10.13	340				
1960	Oct. 10, 1959	10.95	420				
1961	Sept. 13, 1961	14.0	695				
1962	Mar. 20, 1962	8.46	a				
1963	May 4, 1963	11.52	470				
1964	Apr. 27, 1964	8.85	60				
1965	June 3, 1965	13.3	650				

a Less than 50 cfs.

MOREAU RIVER BASIN

6-9105. Moreau River near Jefferson City, Mo.

Location.--Lat 38°30'25", long 92°15'20", in N½ sec.4, T.43 N., R.12 W., on downstream side of right pier of bridge on U. S. Highway 54, 5 miles southwest of Jefferson City, and 5-3/4 miles downstream from confluence of North and South Moreau Creeks.

Drainage area.--531 sq mi. Slope.--4.64 ft per mi.

Gage.--Nonrecording prior to Aug. 17, 1958; recording thereafter. Datum of gage is 562.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Flood in 1905 reached a stage of 38.20 ft, flood in 1943, 35.11 ft, and flood in 1929, 32.91 ft, from floodmarks and information by local resident.

Remarks.--Base for partial-duration series, 7,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 23, 1948	27.0	a23,000				
1949	Nov. 3, 1948	21.0	11,800				
	Jan. 24, 1949	23.0	15,100				
	June 7, 1949	23.75	16,500				
	June 8, 1949	19.4	9,680				
1950	Oct. 22, 1949	22.50	14,200				
	Jan. 3, 1950	18.0	8,200				
	Jan. 14, 1950	18.0	8,200				
	Mar. 12, 1950	17.85	8,020				
	Apr. 29, 1950	18.0	8,200				
	May 20, 1950	17.5	7,750				
1951	Feb. 21, 1951	23.00	15,100				
	Mar. 11, 1951	18.25	8,400				
	June 24, 1951	17.75	8,020				
	June 29, 1951	18.55	8,800				
	July 7, 1951	23.75	16,500				
	July 13, 1951	22.57	14,400				
1952	Oct. 7, 1951	18.00	8,200				
	Oct. 24, 1951	18.00	8,200				
	Nov. 13, 1951	17.66	7,930				
	Feb. 4, 1952	17.90	8,110				
1953	Mar. 4, 1953	16.82	7,120				
1954	May 2, 1954	10.0	2,790				
1955	Feb. 20, 1955	21.0	11,800				
1956	Oct. 6, 1955	19.0	9,200				
1957	May 26, 1957	24.0	a16,900				
1958	Feb. 28, 1958	18.57	8,800				
	Mar. 9, 1958	20.84	11,500				
	June 15, 1958	22.57	14,400				
	July 18, 1958	22.10	13,600				
	July 31, 1958	17.90	8,110				
1959	Feb. 10, 1959	20.62	11,200				
1960	Oct. 11, 1959	20.85	11,500				
	Apr. 17, 1960	18.80	9,000				
	May 7, 1960	23.30	15,600				
1961	May 6, 1961	22.80	13,100				
	May 8, 1961	25.06	17,100				
1962	Mar. 21, 1962	26.40	19,800				
1963	Mar. 5, 1963	18.02	7,960				
	May 26, 1963	18.83	8,640				
1964	Apr. 5, 1964	19.30	9,080				
	June 15, 1964	27.20	20,200				
1965	Apr. 6, 1965	20.95	10,800				
	Sept. 6, 1965	24.30	15,300				
	Sept. 15, 1965	22.12	12,100				
	Sept. 23, 1965	26.35	18,800				

a Annual peak only.

MOREAU RIVER BASIN

6-9107. Hazel Branch tributary near Wardsville, Mo.

Location.--Lat 38°28'15", long 92°12'35", in NE¼SE¼ sec.14, T.43 N., R.12 W., 6 ft upstream from concrete culvert under Cole County Road "B", 2.5 miles southwest of Wardsville.

Drainage area.--0.13 sq mi. Slope.--141 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements at 12.9, 15.4, and 16.2 cfs and by indirect measurements at 60 and 180 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	July 9, 1957	10.56	a96				
1958	June 12, 1958	11.63	a142				
1959	Feb. 9, 1959	9.08	a42				
1960	July 13, 1960	9.48	a56				
1961	May 5, 1961	11.88	a152				
1962	June 9, 1962	10.01	a75				
1963	May 16, 1963	11.76	a148				
1964	June 14, 1964	13.05	210				
1965	June 3, 1965	9.56	58				

a Revised.

OSAGE RIVER BASIN

6-9182. North Fork Panther Creek tributary near Appleton City, Mo.

Location.--Lat 38°11'38", long 94°04'53", in NE¼SW¼ sec.2, T.39 N., R.29 W., on left bank just upstream from culvert under State Highway 52, a quarter of a mile south of Hudson, 3 miles west of Appleton City, and 18 miles southeast of Butler.

Drainage area.--0.08 sq mi. Slope.--222.00 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by estimation of flow at 2.4 cfs and by indirect measurements at 57.8 and 81.7 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Oct. 18, 1954	a	b				
1956	Oct. 5, 1955	5.63	82				
1957	May 16, 1957	5.92	88				
1958	May 4, 1958	4.72	58				
1959	May 18, 1959	4.77	60				
1960	May 5, 1960	4.57	55				
1961	June 20, 1961	4.15	44				
1962		a	b				
1963		a	b				
1964	July 11, 1964	3.62	35				
1965	Sept. 4, 1965	5.51	77				

a Stage did not reach gage during year.
b Less than 30 cfs

OSAGE RIVER BASIN

6-9183. West Fork Clear Creek tributary near Nevada, Mo.

Location.--Lat 37°51'43", long 94°13'51", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.27, T.36 N., R.30 W., on left bank just upstream from culvert under U. S. Highway 54, 0.2 mile east of county road "C", and 7 $\frac{1}{2}$ miles northeast of Nevada.

Drainage area.--0.51 sq mi. Slope.--36.2 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 112, 392, and 694 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 30, 1955	8.67	392				
1956	May 30, 1956	6.16	165				
1957	June 4, 1957	7.65	300				
1958	July 16, 1958	8.67	392				
1959	Feb. 9, 1959	7.25	255				
1960	May 5, 1960	8.72	395				
1961	May 5, 1961	8.62	390				
1962	Oct. 30, 1961	6.08	160				
1963	May 26, 1963	11.68	694				
1964	Apr. 5, 1964	6.00	155				
1965	Apr. 3, 1965	6.08	160				

OSAGE RIVER BASIN

6-9184. Pickerel Creek tributary near Republic, Mo.

Location.--Lat 37°07'10", long 93°31'30", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.23, T.28 N., R.24 W., on left bank just upstream from culvert under U. S. Highway 166, 2 miles west of Republic.

Drainage area.--0.57 sq mi. Slope.--68.8 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage Nov. 22, 1961 to Mar. 7, 1963.

Stage-discharge relation.--Defined by indirect measurements at 192 and 242 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 22, 1957	9.75	242				
1958	July 7, 1958	8.82	192				
1959	-	(a)	25				
1960	Aug. 4, 1960	7.99	145				
1961	May 8, 1961	8.58	178				
1962	-	(a)	(b)				
1963	May 13, 1963	9.0	200				
1964	June 13, 1964	7.82	135				
1965	June 13, 1965	6.74	75				

a Stage did not reach gage during year.

b Less than 25 cfs.

OSAGE RIVER BASIN

6-9187. Oak Grove Branch near Brighton, Mo.

Location.--Lat 37°24'11", long 93°21'21", in SE¼SW¼ sec.21, T.31 N., R.22 W., at culvert under Greene County Highway BB, 0.6 mile west of junction with U. S. Highway 13, and 4 miles south of Brighton.

Drainage area.--1.30 sq mi. Slope.--94.2 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 820 cfs and by indirect measurement at 883 cfs.

Remarks.--Only annual peaks are shown.

				Peak stages and discharges				
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May	22, 1957	7.60	845				
1958	Sept.	2, 1958	5.33	492				
1959	Feb.	9, 1959	3.91	320				
1960	Oct.	4, 1959	2.87	196				
1961	Mar.	6, 1961	3.77	302				
1962	Mar.	20, 1962	1.08	17				
1963	May	26, 1963	1.48	47				
1964	Apr.	5, 1964	2.30	140				
1965	Apr.	4, 1965	4.00	332				

OSAGE RIVER BASIN

6-9187.5. Franca Branch near Brighton, Mo.

Location.--Lat 37°30", long 93°21', in NE¼NW¼SE¼ (revised) sec.16, T.32 N., R.22 W., on right bank just upstream from culvert under State Highway 13, 2.7 miles south of Slagle, and 8.7 miles southeast of Bolivar.

Drainage area.--0.59 sq mi. Slope.--109 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 45, 184, 298, and 883 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

				Peak stages and discharges				
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May	12, 1955	14.35	298				
1956	May	30, 1956	14.20	245				
1957	June	27, 1957	12.46	110				
1958	July	16, 1958	12.79	135				
1959	-		(a)	(b)				
1960	Oct.	4, 1959	13.61	195				
1961	May	5, 1961	15.67	380				
1962	Apr.	22, 1962	12.26	96				
1963	May	26, 1963	13.50	184				
1964	July	1, 1964	19.68	884				
1965	Apr.	4, 1965	12.74	130				

a Stage below bottom of gage.

b Discharge less than 50 cfs.

OSAGE RIVER BASIN

6-9190. Sac River near Stockton, Mo.

Location.--Lat 37°42'03", long 93°45'20", in SW¼NW¼ sec.11, T.34 N., R.26 W., on right bank 20 ft upstream from bridge on State Highway 32, three-quarters of a mile upstream from Bear Creek, and 2 miles east of Stockton.

Drainage area.--1,160 sq mi. Slope.--4.23 ft per mi.

Gage.--Nonrecording prior to May 4, 1960; recording gage thereafter. Datum of gage is 764.12 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--18 ft.

Historical data.--Maximum stage known prior to 1943, 29.3 ft in July 1909.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1896	Dec. 19, 1895	27.25	a72,000	1939	May 8, 1939	17.3	10,900
1909	July 1909	29.3	a92,000	1940	May 1, 1940	13.6	6,830
1922	May 14, 1922	18.00	9,440	1941	Apr. 15, 1941	19.10	14,400
1923	May 24, 1923	15.80	7,930		Apr. 19, 1941	26.5	57,000
1924	May 29, 1924	21.60	21,400	1942	Oct. 5, 1941	26.4	56,300
	July 20, 1924	20.90	14,800		Oct. 31, 1941	22.50	21,600
	Aug. 17, 1924	21.05	15,000		June 18, 1942	19.80	12,800
1925	Sept. 22, 1925	22.30	23,900	1943	Dec. 28, 1942	22.20	20,300
1926	Nov. 8, 1925	15.40	8,600		May 11, 1943	23.03	23,600
1927	Apr. 1, 1927	24.95	34,800		May 19, 1943	31.8	120,000
	Apr. 10, 1927	24.60	33,200	1944	Aug. 27, 1944	22.0	27,000
	Apr. 16, 1927	22.00	22,800	1945	Mar. 3, 1945	18.40	12,500
	Apr. 20, 1927	18.85	13,300		Apr. 14, 1945	25.6	56,400
	June 21, 1927	18.95	13,700		June 7, 1945	20.30	14,000
	July 21, 1927	24.45	32,300		Sept. 23, 1945	19.70	12,600
	Aug. 9, 1927	21.50	21,000		Sept. 26, 1945	23.70	26,900
	Aug. 18, 1927	23.10	27,000	1946	Feb. 14, 1946	16.28	8,790
1928	June 10, 1928	20.90	19,000	1947	Apr. 11, 1947	21.00	16,000
	June 29, 1928	20.98	19,300		Apr. 25, 1947	25.25	52,800
1929	Apr. 9, 1929	20.70	18,400		July 1, 1947	20.00	13,200
	May 6, 1929	20.70	18,400	1948	June 22, 1948	24.6	47,400
	May 13, 1929	20.50	17,800		June 26, 1948	20.04	19,300
	May 19, 1929	20.85	18,700	1949	Feb. 16, 1949	19.2	14,400
1930	Feb. 5, 1930	15.55	8,800	1950	Oct. 23, 1949	21.9	26,300
1931	May 20, 1931	19.80	15,700		Jan. 5, 1950	20.37	18,400
	Aug. 7, 1931	22.40	24,300		Jan. 14, 1950	21.57	24,300
1932	June 28, 1932	24.00	30,700	1951	Feb. 21, 1951	21.40	20,200
1933	Dec. 25, 1932	23.48	30,400		July 1, 1951	22.00	23,300
	May 14, 1933	20.30	20,000		July 4, 1951	25.35	50,100
	May 26, 1933	17.80	13,200		Sept. 10, 1951	20.16	15,600
1934	Sept. 12, 1934	20.50	20,600	1952	Nov. 12, 1951	18.80	11,900
1935	Oct. 18, 1934	19.90	19,100	1953	Apr. 24, 1953	11.85	4,860
	Mar. 12, 1935	22.59	36,200	1954	May 2, 1954	9.80	3,610
	June 8, 1935	17.45	12,300	1955	Oct. 27, 1954	19.81	14,400
	June 14, 1935	20.61	22,000		Feb. 20, 1955	19.0	12,300
	June 21, 1935	17.45	12,300	1956	July 14, 1956	10.50	4,040
1936	Sept. 28, 1936	17.06	11,800	1957	May 24, 1957	21.78	23,000
1937	Nov. 2, 1936	20.46	19,300	1958	Mar. 24, 1958	20.35	17,700
	Jan. 15, 1937	19.30	15,200		July 8, 1958	20.8	19,100
	Jan. 31, 1937	18.28	12,700		July 17, 1958	25.3	45,000
	Apr. 30, 1937	19.50	15,800	1959	Feb. 10, 1959	16.30	8,660
	June 9, 1937	21.40	23,300				
	June 14, 1937	23.15	34,300				
1938	May 8, 1938	16.50	9,700				

OSAGE RIVER BASIN

Peak stages and discharges of Sac River near Stockton, Mo.--Continued

Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1960	Oct.	5, 1959	20.8	16,800	1963	May	26, 1963	18.68	11,200
	May	6, 1960	19.35	12,000	1964	June	14, 1964	18.72	11,400
1961	May	1, 1961	20.70	18,400	1965	Apr.	4, 1965	21.96	28,800
	May	6, 1961	23.38	38,400		Apr.	7, 1965	20.30	17,300
	May	9, 1961	25.30	55,500					
1962	Mar.	20, 1962	17.75	9,350					

a Annual peak only.

OSAGE RIVER BASIN

6-9192. Sac River tributary near Caplinger Mills, Mo.

Location--Lat 37°48'22", long 93°51'00", in NE¼NE¼ sec.13, T.35 N., R.27 W., on left bank just upstream from culvert under State Highway 39, 6.2 miles south of junction of U. S. 54 and State 39, 2½ miles west of Caplinger Mills, and 10½ miles southeast of Eldorado Springs.

Drainage area--0.14 sq mi. Slope--149 ft per mi.

Gage--Crest-stage gage; supplemental roving recorder installed Sept. 12, 1962.

Stage-discharge relation--Defined at 45, 204, and 329 cfs by indirect measurements.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1955	Mar.	14, 1955	9.52	204					
1956	May	30, 1956	10.63	329					
1957	May	25, 1957	8.00	127					
1958	July	16, 1958	9.00	175					
1959	Mar.	5, 1959	5.23	21					
1960	May	5, 1960	5.60	32					
1961	May	5, 1961	8.74	160					
1962	June	29, 1962	6.52	64					
1963	May	26, 1963	5.36	25					
1964	Apr.	5, 1964	5.98	45					
1965	Apr.	5, 1965	7.23	92					

OSAGE RIVER BASIN

6-9195. Cedar Creek near Pleasant View, Mo.

Location.--Lat 37°50'03", long 93°52'31", in NE¼ sec.2, T.35 N., R.27 W., on downstream side of right pier of bridge on State Highway 39, 1½ miles north of Pleasant View, 1-3/4 miles downstream from Alder Creek, and 5-3/4 miles upstream from mouth.

Drainage area.--420 sq mi, approximately. Slope.--4.78 ft per mi.

Gage.--Nonrecording prior to Dec. 18, 1952; recording gage thereafter. Datum of gage is 739.5 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--20 ft.

Historical data.--Maximum stage known, 27.7 ft July 30, 1909.

Remarks.--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	July 20, 1909	a27.7	-	1954	May 2, 1954	8.63	1,570
1923	June 10, 1923	20.86	a7,310	1955	Oct. 27, 1954	20.23	6,700
1924	Dec. 13, 1923	16.75	4,460		Feb. 20, 1955	19.17	5,860
	Feb. 17, 1924	16.61	4,370		Mar. 15, 1955	20.36	6,900
	May 24, 1924	19.32	5,790		Mar. 21, 1955	16.93	4,570
	May 29, 1924	22.92	11,400		June 27, 1955	19.20	5,860
	June 10, 1924	16.60	4,370	1956	May 31, 1956	19.50	6,070
	June 21, 1924	20.11	6,430				
	July 12, 1924	24.00	16,000	1957	Apr. 4, 1957	14.79	3,620
	July 21, 1924	14.77	3,620		May 18, 1957	20.25	6,700
	Aug. 16, 1924	15.70	3,980		May 23, 1957	20.37	6,900
1925	Mar. 19, 1925	18.75	5,490		May 26, 1957	22.40	9,900
	Apr. 4, 1925	16.10	4,140		June 2, 1957	15.94	4,100
	Sept. 23, 1925	21.78	8,440		July 1, 1957	18.07	5,180
1926	Nov. 8, 1925	19.12	5,660	1958	Mar. 24, 1958	20.47	7,000
	Aug. 21, 1926	15.00	3,700		July 17, 1958	27.35	33,900
	Sept. 6, 1926	17.40	4,750		July 25, 1958	17.98	5,120
1943	May 1943	24.7	a19,500	1959	Feb. 10, 1959	17.31	4,770
1949	Jan. 24, 1949	20.2	6,530		Mar. 6, 1959	19.28	5,930
	Feb. 17, 1949	15.5	3,900	1960	Oct. 14, 1959	15.07	3,740
	June 10, 1949	15.7	3,980		May 7, 1960	20.82	7,300
	July 12, 1949	14.9	3,660	1961	May 1, 1961	22.60	12,200
1950	July 17, 1950	15.1	3,740		May 6, 1961	26.15	27,700
	July 19, 1950	22.38	9,900		Sept. 14, 1961	16.35	4,470
	Aug. 28, 1950	15.7	4,020	1962	Nov. 3, 1961	16.48	4,520
1951	Feb. 21, 1951	22.7	10,800		Mar. 21, 1962	22.10	10,600
	June 23, 1951	17.0	4,620		June 10, 1962	15.87	4,200
	July 1, 1951	22.2	9,400	1963	May 27, 1963	20.50	7,300
	July 4, 1951	25.56	24,300	1964	Apr. 6, 1964	19.40	6,320
	July 11, 1951	19.75	6,320		June 14, 1964	16.10	4,300
	Aug. 28, 1951	19.45	6,000				
	Sept. 10, 1951	24.29	17,500	1965	Apr. 4, 1965	21.47	8,900
	Sept. 13, 1951	19.0	5,720		May 9, 1965	16.40	4,220
1952	Nov. 12, 1951	21.50	8,160		June 14, 1965	22.63	11,100
	Feb. 2, 1952	14.70	3,580		Sept. 22, 1965	16.10	4,070
1953	Apr. 24, 1953	10.67	2,190				

a Annual peak only.

OSAGE RIVER BASIN

6-9205. Osage River at Osceola, Mo.

Location.--Lat 38°03'44", long 93°41'37", in NE¼NE¼ sec.17, T.38 N., R.25 W., half a mile downstream from Gallinipper Creek, 1 mile downstream from hydroelectric plant of Missouri Public Service Co., and 1 mile northeast of Osceola.

Drainage area.--8,220 sq mi, approximately. Slope.--1.66 ft per mi.

Gage.--Nonrecording gage Mar. 1, 1917, to Sept. 30, 1928; recording gage since Nov. 28, 1930. At site 1½ miles upstream at datum 3.67 ft higher Mar. 1, 1917, to Sept. 30, 1928. Datum of gage is 679.23 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--22 ft.

Remarks.--Gage heights adjusted to present site and datum. Low and medium flow regulated by power plant 1 mile upstream since 1930. Peak flows not materially affected by regulation. Base for partial-duration series, 32,000 cfs.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1844	June	1844	45	a150,000	1937	Nov. 4, 1936		20.61	35,700
						June 12, 1937		24.04	44,500
1896	Dec.	1895	35.3	a90,000		June 17, 1937		25.90	49,500
1918	Apr. 29,	1918	12.0	16,100	1938	May 30, 1938		24.97	47,300
1919	May 21, 1919		18.9	31,100	1939	May 9, 1939		14.55	20,200
1920	Oct. 30, 1919		21.70	37,500	1940	May 2, 1940		12.36	15,300
	Mar. 28, 1920		23.4	41,800	1941	Apr. 21, 1941		30.22	62,600
1921	Aug. 16, 1921		19.1	31,500	1942	Oct. 7, 1941		30.00	61,600
1922	Mar. 20, 1922		23.80	42,300		Nov. 2, 1941		31.78	71,100
	Apr. 2, 1922		23.60	41,900		June 22, 1942		23.52	40,600
	Apr. 10, 1922		30.8	65,000	1943	Dec. 30, 1942		24.96	44,600
	Apr. 18, 1922		29.7	61,200		May 13, 1943		28.60	55,200
1923	June 11, 1923		20.7	35,200		May 21, 1943		41.48	146,000
	June 17, 1923		22.2	38,700		June 9, 1943		21.85	36,200
1924	May 31, 1924		21.40	36,800	1944	Mar. 23, 1944		21.36	35,400
	July 14, 1924		24.40	43,800		Apr. 13, 1944		22.47	38,000
	July 21, 1924		20.80	35,400		May 1, 1944		31.56	69,500
1925	Sept. 24, 1925		19.31	32,000		Aug. 29, 1944		22.68	38,600
1926	Nov. 9, 1925		18.9	31,100	1945	Mar. 21, 1945		21.18	35,200
1927	Oct. 7, 1926		22.00	38,200		Mar. 26, 1945		21.71	36,400
	Oct. 11, 1926		24.50	44,800		Apr. 17, 1945		31.11	66,800
	Mar. 22, 1927		23.40	41,800		Apr. 23, 1945		29.39	58,700
	Apr. 2, 1927		27.30	53,200	1946	Aug. 14, 1946		20.30	33,100
	Apr. 11, 1927		32.4	70,900	1947	Nov. 1, 1946		25.73	46,500
	Apr. 17, 1927		32.10	69,800		Apr. 13, 1947		25.42	45,700
	June 22, 1927		26.10	49,500		Apr. 27, 1947		27.95	53,000
	July 23, 1927		23.80	42,900	1948	June 24, 1948		29.03	56,900
	Aug. 9, 1927		30.25	62,900		Aug. 2, 1948		23.80	41,700
	Aug. 20, 1927		30.50	64,000	1949	Jan. 24, 1949		20.04	32,600
1928	Oct. 8, 1927		28.2	56,100		Feb. 18, 1949		22.55	38,700
	June 11, 1928		25.35	47,500	1950	July 19, 1950		24.20	43,500
	June 19, 1928		19.70	32,900	1951	Feb. 22, 1951		23.85	42,500
	June 30, 1928		22.20	38,700		June 24, 1951		20.38	34,300
1929	May 21, 1929		b32.4	a68,000		July 6, 1951		35.87	98,300
1931	May 21, 1931		17.35	27,700		July 20, 1951		35.07	92,300
1932	June 30, 1932		16.40	25,300		Sept. 14, 1951		32.10	72,400
1933	Dec. 26, 1932		20.66	36,000	1952	Nov. 14, 1951		21.39	35,900
	May 16, 1933		21.17	37,200	1953	Apr. 25, 1953		12.43	16,100
1934	Sept. 13, 1934		11.30	13,800	1954	May 2, 1954		15.04	21,500
1935	Mar. 14, 1935		21.32	37,500	1955	Feb. 22, 1955		19.20	30,800
	June 9, 1935		29.35	59,700	1956	May 31, 1956		19.12	30,500

OSAGE RIVER BASIN

Peak stages and discharges of Osage River at Osceola, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 25, 1957	26.26	48,100	1961	Sept. 22, 1961	24.78	44,200
1958	Mar. 25, 1958	21.17	35,200	1962	Mar. 21, 1962	23.50	41,000
	July 20, 1958	33.50	81,200	1963	May 27, 1963	18.25	28,100
1959	Feb. 11, 1959	15.92	22,900	1964	June 15, 1964	21.32	35,400
1960	May 6, 1960	22.82	39,200	1965	Apr. 6, 1965	25.56	46,800
1961	May 10, 1961	36.92	113,000		June 16, 1965	23.68	41,400

a Annual peak only.

b Furnished by U. S. Weather Bureau; affected by backwater due to dam construction.

OSAGE RIVER BASIN

6-9208. Big Muddy Creek at Lowry City, Mo.

Location--Lat 38°09'29", long 93°43'22", in NE¼SE¼ sec.12, T.39 N., R.26 W., on right bank just upstream from culvert under State Highway 13, 1 mile north of Lowry City.

Drainage area--0.31 sq mi. Slope--48.7 ft per mi.

Gage--Crest-stage gage. At site 0.1 mile upstream and at different datum prior to Jan. 7, 1965.

Stage-discharge relation--Defined by current-meter measurements below 4.8 cfs and by indirect measurements at 34.0, 36.9, 59.2, 62.9, and 160 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Aug. 29, 1955	7.47	42				
1956	July 26, 1956	8.71	96				
1957	June 30, 1957	9.65	160				
1958	Sept. 2, 1958	10.05	180				
1959	July 4, 1959	8.98	110				
1960	Oct. 10, 1959	10.08	180				
1961	May 5, 1961	9.95	175				
1962	Feb. 18, 1962	8.99	110				
1963	Oct. 13, 1962	9.99	180				
1964	Aug. 14, 1964	8.39	80				
1965	Sept. 4, 1965	8.30	(a)				

a Discharge not determined.

OSAGE RIVER BASIN

6-9210. Pomme de Terre River near Bolivar, Mo.

Location.--Lat 37°36', long 93°19', in N½ sec.11, T.33 N., R.22 W., on downstream side of left main pier of bridge on State Highway 64 in Burns, 4-3/4 miles upstream from Hominy Creek and 5½ miles east of Bolivar.

Drainage area.--225 sq mi. Slope.--9.0 ft per mi.

Gage.--Nonrecording prior to June 23, 1952, recording thereafter. Datum of gage is 913.97 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs.

Bankfull stage.--14 ft.

Remarks.--Base for partial-duration series, 5,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Feb. 20, 1951	10.1	5,920	1958	Mar. 23, 1958	13.30	9,740
	June 30, 1951	13.7	9,560		July 8, 1958	12.70	8,860
	July 4, 1951	11.0	6,780		July 11, 1958	10.62	6,660
	Aug. 28, 1951	12.06	7,880		July 16, 1958	17.30	17,600
	Sept. 24, 1951	13.00	8,790	1959	Feb. 10, 1959	10.58	6,440
1952	Feb. 1, 1952	9.00	4,880		Oct. 4, 1959	11.45	7,320
1953	Apr. 24, 1953	6.98	3,250	1961	Apr. 30, 1961	17.60	18,300
1954	May 2, 1954	6.55	2,920		May 5, 1961	17.15	17,300
					May 8, 1961	14.00	10,700
1955	Oct. 26, 1954	11.10	6,880	1962	May 30, 1962	8.40	4,230
	Feb. 20, 1955	11.80	7,580				
1956	May 31, 1956	9.80	5,640	1963	May 26, 1963	11.90	7,880
					June 15, 1963	11.52	7,430
1957	Apr. 3, 1957	11.77	7,580	1964	Apr. 5, 1964	8.90	4,650
	May 17, 1957	10.87	6,680				
	May 21, 1957	11.0	6,780	1965	Apr. 3, 1965	10.79	6,960
	May 23, 1957	15.88	12,900		Apr. 5, 1965	13.83	11,000
	May 25, 1957	10.99	7,120		July 11, 1965	14.40	12,000
	June 9, 1957	10.35	6,470		Sept. 22, 1965	10.20	6,270
1958	Dec. 17, 1957	11.60	7,790				

OSAGE RIVER BASIN

6-9211. Olinger Creek near Buffalo, Mo.

Location.--Lat 37°40'47", long 93°06'10", in NW¼SW¼SW¼ sec.11, T.34 N., R.20 W., 20 ft upstream from concrete culvert under U. S. Highway 65, 0.2 mile north of Dallas County Road Z, and 2½ miles north of Buffalo.

Drainage area.--1.96 sq mi. Slope.--47.8 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Mar. 8, 1963, and removed May 18, 1965.

Stage-discharge relation.--Defined by indirect measurements at 550, 772, and 3,250 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 30, 1957	9.11	555				
1958	July 16, 1958	9.33	590				
1959	June 11, 1959	10.65	770				
1960	Oct. 4, 1959	8.48	460				
1961	May 5, 1961	16.4	3,250				
1962	July 6, 1962	9.36	600				
1963	Oct. 13, 1962	10.06	700				
1964	Apr. 5, 1964	8.19	380				
1965	Sept. 22, 1965	8.70	480				

OSAGE RIVER BASIN

6-9212. Lindley Creek near Polk, Mo.

Location.--Lat 37°45'02", long 93°15'58", in NE¼SE¼ sec.29, T.35 N., R.21 W., 2½ miles northeast of Polk, and 11 miles upstream from Ingalls Creek.

Drainage area.--112 sq mi. Slope.--11.6 ft per mi.

Gage.--Nonrecording prior to Sept. 25, 1957, recording thereafter. Datum of gage is 884.08 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and by slope-conveyance study.

Bankfull stage.--17 ft.

Historical data.--Flood of September 1914 reached a stage of about 25.2 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 17, 1957	14.8	3,730	1960	Nov. 4, 1959	13.83	3,980
	May 22, 1957	14.2	3,270		Dec. 18, 1959	15.97	4,780
	May 25, 1957	15.5	4,320		May 6, 1960	17.07	6,200
	June 30, 1957	13.4	2,700	1961	Mar. 6, 1961	14.01	3,120
1958	Mar. 9, 1958	14.73	3,650		Apr. 30, 1961	16.67	5,570
	Mar. 23, 1958	15.92	4,680		May 5, 1961	23.60	28,000
	May 30, 1958	13.57	2,840		May 8, 1961	19.30	12,200
	July 7, 1958	12.40	2,090	1962	Mar. 20, 1962	16.83	6,260
	July 12, 1958	16.30	5,090		Mar. 25, 1962	12.40	2,090
	July 16, 1958	19.16	12,000	1963	Oct. 13, 1962	17.85	8,240
	July 17, 1958	18.7	10,100		May 4, 1963	15.25	4,070
	July 31, 1958	13.66	2,900		May 26, 1963	17.10	6,780
	Aug. 12, 1958	13.72	2,900		June 15, 1963	13.38	2,700
	Sept. 2, 1958	17.8	7,580		June 19, 1963	12.70	2,260
1959	Feb. 10, 1959	16.05	4,780	1964	Apr. 5, 1964	16.70	6,090
	June 1, 1959	13.89	3,040	1965	Apr. 3, 1965	14.26	3,340
	June 12, 1959	15.29	4,140		Apr. 6, 1965	15.97	5,000
	July 5, 1959	13.72	2,900		June 24, 1965	14.28	3,340
1960	July 17, 1959	14.77	3,730		Sept. 22, 1965	16.97	6,600
	Oct. 2, 1959	17.65	7,160				
	Oct. 4, 1959	17.41	6,760				
	Oct. 13, 1959	15.50	4,320				

OSAGE RIVER BASIN

6-9213. North Fork Ingalls Creek near Louisburg, Mo.

Location.--Lat 37°46'46", long 93°08'42", in NE¼NE¼SW¼ sec.16, T.35 N., R.20 W., on left bank just upstream from culvert under State Highway 65, 1.5 miles north of junction C and 65 in Louisburg.

Drainage area.--0.32 sq mi. Slope.--87.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 62 and 166 cfs by indirect measurements and below 5 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 16, 1958	5.84	125				
1959	June 11, 1959	5.99	135				
1960	May 6, 1960	6.13	145				
1961	May 7, 1961	6.44	166				
1962	Mar. 20, 1962	4.07	30				
1963	May 26, 1963	4.16	34				
1964	Apr. 5, 1964	4.60	54				
1965	Sept. 22, 1965	4.16	34				

OSAGE RIVER BASIN

6-9214. Ferguson Branch at Nemo, Mo.

Location.--Lat 37°52'50", long 93°15'30", in NE¼SE¼ sec.8, T.36 N., R.21 W., on County Road D, 0.5 mile northeast of Nemo.

Drainage area.--0.18 sq mi. Slope.--154 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 40, 55.6 and 304 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 30, 1957	10.00	304				
1958	Sept. 1, 1958	6.07	25				
1959	May 27, 1959	6.32	31				
1960	Oct. 3, 1959	6.99	56				
1961	May 5, 1961	6.49	38				
1962	June 25, 1962	5.9	20				
1963	May 26, 1963	6.10	25				
1964	Apr. 5, 1964	6.14	26				
1965	June 23, 1965	6.01	22				

OSAGE RIVER BASIN

6-9215. Pomme de Terre River at Hermitage, Mo.

Location.--Lat 37°56'45", long 93°18'35", in SE¼NE¼ sec.23, T.37 N., R.22 W., at bridge on U. S. Highway 54, a quarter of a mile east of Hermitage, and 1½ miles downstream from Mill (Crane) Creek.

Drainage area.--655 sq mi. Slope.--4.8 ft per mi.

Gage.--Nonrecording July 25, 1921, to July 28, 1937; recording gage thereafter. At site 1.6 miles upstream and at different datum prior to Oct. 1, 1925. Datum of gage is 727.08 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 41,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Flow regulated since June 28, 1960 by Pomme de Terre Reservoir (maximum capacity, 650,000 acre-ft). Base for partial-duration series, 12,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Mar. 14, 1922	18.95	16,600	1942	Oct. 5, 1941	30.70	44,300
					Oct. 31, 1941	23.20	19,800
1923	June 4, 1923	12.38	7,600		June 18, 1942	29.60	39,900
					June 21, 1942	21.10	15,600
1924	May 29, 1924	22.56	24,600				
	June 10, 1924	20.00	18,800	1943	Dec. 27, 1942	24.58	23,800
					May 11, 1943	24.20	23,000
1925	Sept. 22, 1925	15.80	11,400		May 19, 1943	29.48	39,900
1926	Nov. 8, 1925	15.84	9,000	1944	May 1, 1944	19.36	13,000
					Aug. 27, 1944	23.52	21,000
1927	Oct. 5, 1926	19.30	13,100				
	Mar. 20, 1927	20.40	14,600	1945	Apr. 3, 1945	19.30	12,800
	Apr. 1, 1927	23.50	19,000		Apr. 14, 1945	26.92	30,700
	Apr. 16, 1927	19.70	13,600		Sept. 23, 1945	20.29	14,400
	June 1, 1927	23.60	19,100		Sept. 25, 1945	25.27	26,600
	Aug. 8, 1927	36.45	70,000				
1928	June 10, 1928	22.50	19,800	1946	Aug. 14, 1946	27.84	33,700
	June 29, 1928	19.30	13,100				
	Aug. 2, 1928	21.16	15,700	1947	Nov. 1, 1946	24.20	22,700
					Apr. 11, 1947	22.69	19,100
1929	Apr. 9, 1929	19.72	13,600		Apr. 25, 1947	28.44	35,800
	May 7, 1929	23.95	23,700				
	May 13, 1929	20.90	15,300	1948	June 22, 1948	29.06	38,400
	May 19, 1929	20.24	14,300		June 26, 1948	18.90	12,300
					July 20, 1948	20.11	14,100
1930	Feb. 4, 1930	15.10	8,300	1949	Feb. 15, 1949	19.87	13,800
					July 7, 1949	21.23	16,000
1931	May 20, 1931	21.46	16,100				
	Aug. 6, 1931	19.40	13,200	1950	Jan. 5, 1950	20.38	14,500
					Jan. 14, 1950	22.62	18,900
1932	June 28, 1932	22.20	19,100		May 31, 1950	19.41	13,000
1933	Dec. 25, 1932	22.20	19,100	1951	Feb. 21, 1951	19.98	13,900
	May 14, 1933	19.95	14,000		July 1, 1951	26.40	29,000
					July 11, 1951	20.3	14,400
1934	Apr. 16, 1934	12.14	5,530		Sept. 10, 1951	23.73	21,500
1935	Mar. 12, 1935	23.76	23,200	1952	Feb. 2, 1952	18.82	12,100
	May 29, 1935	20.82	16,000				
	June 15, 1935	29.38	42,200	1953	Apr. 24, 1953	15.55	8,330
1936	Sept. 28, 1936	17.11	9,740	1954	May 3, 1954	11.01	4,450
1937	Nov. 3, 1936	23.05	21,000	1955	Feb. 20, 1955	20.03	13,900
	Jan. 15, 1937	20.50	16,500		Mar. 15, 1955	22.05	17,600
	Jan. 31, 1937	19.70	15,100		Mar. 21, 1955	20.05	13,900
	June 10, 1937	25.97	29,900				
	June 16, 1937	19.00	13,900	1956	May 31, 1956	22.95	19,800
1938	May 24, 1938	15.50	9,120	1957	May 17, 1957	21.66	17,000
					May 24, 1957	19.27	12,800
1939	Apr. 6, 1939	21.28	17,100				
	May 8, 1939	19.80	14,000	1958	Mar. 24, 1958	23.40	18,900
					July 18, 1958	27.34	28,000
1940	May 1, 1940	15.70	8,060		Sept. 3, 1958	19.95	13,500
1941	Apr. 16, 1941	21.72	16,700	1959	Feb. 10, 1959	18.03	10,800
	Apr. 19, 1941	29.44	39,100				

OSAGE RIVER BASIN

Peak stages and discharges of Pomme de Terre River at Hermitage, Mo.--Continued

Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1960	Oct.	5, 1959	21.6	15,900	1963	May	26, 1963	10.30	a3,740
	May	6, 1960	20.26	13,900	1964	Apr.	5, 1964	12.43	a5,290
1961	May	5, 1961	18.67	a11,600	1965	June	23, 1965	13.76	a6,420
1962	Mar.	23, 1962	13.58	a6,250					

a Annual peak only.

OSAGE RIVER BASIN

6-9216. South Grand River at Ulrich, Mo.

Location---Lat 38°27'08", long 94°00'13", in SE¼NW¼ sec.10, T.42 N., R.28 W., on left bank 10 ft downstream from bridge on County Highway K, half a mile south of Ulrich, 1 mile upstream from White Oak Creek, and 1.7 miles downstream from Knob Creek.

Drainage area---670 sq mi.

Gage---Recording. Datum of gage, 715.9 ft above mean sea level, datum of 1929.

Stage-discharge relation---Defined by current-meter measurements below 21,900 cfs.

Remarks---Base for partial-duration series, 5,500 cfs.

Peak stages and discharges

Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1961	Mar.	13, 1961	22.95	6,400	1963	May	26, 1963	23.80	7,940
	Apr.	10, 1961	24.62	11,900					
	Apr.	12, 1961	23.20	6,690	1964	Apr.	5, 1964	22.40	5,690
	May	7, 1961	25.95	22,200		Apr.	21, 1964	22.60	5,910
	May	23, 1961	23.35	7,050		Apr.	23, 1964	22.50	5,800
	Aug.	2, 1961	22.50	5,800		May	28, 1964	23.60	7,460
	Sept.	4, 1961	22.45	5,690		June	15, 1964	23.70	7,690
	Sept.	15, 1961	26.84	29,200					
1962	Oct.	13, 1961	23.08	6,540	1965	Jan.	23, 1965	23.45	7,050
	Nov.	3, 1961	24.94	14,500		Apr.	6, 1965	23.20	6,690
	Nov.	17, 1961	24.50	11,200		June	6, 1965	24.20	9,300
	Mar.	21, 1962	25.08	15,700		June	15, 1965	24.95	15,300
						Sept.	5, 1965	25.77	20,600
						Sept.	22, 1965	24.90	14,100

OSAGE RIVER BASIN

6-9217. West Branch Crawford Creek near Lees Summit, Mo.

Location.--Lat 38°52'48", long 94°12'52", in SW¼SE¼ sec.15, T.47 N., R.30 W., on left bank just upstream from culvert under U. S. Highway 50, 0.2 mile east of county road 20 E, 1.2 miles east of Cockrell, and about 8.5 miles southeast of Lees Summit.

Drainage area.--0.80 sq mi. Slope.--59.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 221, 345, and 839 cfs.

Remarks.--Tailwater gage used as reference gage to Mar. 16, 1961 and for 1965 water year. Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 26, 1955	12.46	221				
1956	Apr. 28, 1956	13.47	345				
1957	Sept. 20, 1957	(a)	(b)				
1958	July 30, 1958	12.41	220				
1959	Aug. 31, 1959	12.29	200				
1960	Apr. 6, 1960	15.57	839				
1961	Sept. 13, 1961	17.46	700				
1962	Nov. 2, 1961	13.88	240				
1963		(a)	(c)				
1964	Apr. 4, 1964	12.19	110				
1965	July 19, 1965	15.73	900				

a Stage below bottom of gage.

b Less than 50 cfs.

c Less than 100 cfs.

OSAGE RIVER BASIN

6-9217.2 Big Creek at Blairstown, Mo.

Location.--Lat 38°33'17", long 93°57'54", in NE¼SW¼ sec.36, T.44 N., R.28 W., on downstream side of right bridge pier on County Highway N, 0.3 mile west of Blairstown, 0.8 mile downstream from Bear Creek and 1½ miles upstream from Brushy Creek.

Drainage area.--414 sq mi.

Gage.--Recording. Datum of gage is 734.06 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter below 14,000 cfs.

Remarks.--Base for partial-duration series, 4,500 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Mar. 13, 1961	21.92	6,300	1962	Mar. 21, 1962	23.03	9,050
	Mar. 27, 1961	21.35	5,040				
	Apr. 9, 1961	22.40	6,500	1963	Oct. 13, 1962	23.50	13,400
	May 6, 1961	23.74	14,600				
	Aug. 2, 1961	23.00	10,700	1964	June 14, 1964	21.76	5,240
	Sept. 4, 1961	21.86	5,450				
	Sept. 14, 1961	25.40	24,400	1965	June 5, 1965	22.62	8,500
					July 20, 1965	22.90	10,200
1962	Nov. 3, 1961	22.46	7,750		Sept. 5, 1965	22.50	8,000
	Nov. 16, 1961	22.15	6,300		Sept. 21, 1965	22.48	8,000

OSAGE RIVER BASIN

6-9217.4. Brushy Creek near Blairstown, Mo.

Location.--Lat 38°31'42", long 94°00'37", in NE¼SE¼ sec.9, T.43 N., R.28 W., just upstream from culvert under county highway, 3 miles upstream from mouth, and 3½ miles southwest of Blairstown.

Drainage area.--1.15 sq mi. Slope.--70.8 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 300 and 1,300 cfs by indirect measurements. Defined below 175 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet) Discharge (cfs)
1961	May	5, 1961	9.90	1,270			
1962	Nov.	2, 1961	5.80	415			
1963	May	26, 1963	5.30	345			
1964	Apr.	21, 1964	5.47	360			
1965	June	9, 1965	7.63	720			

OSAGE RIVER BASIN

6-9218. Granddaddy Creek near Ulrich, Mo.

Location.--Lat 38°21'49", long 94°00'47", in NW¼NW¼SW¼ sec.10, T.41 N., R.28 W., on left bank just upstream from culvert under County Route K, 0.3 mile north of junction of County Route K and State Highway 18, and 6½ miles south of Ulrich.

Drainage area.--0.92 sq mi. Slope.--36.2 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 59.5, 129, 327, and 1,150 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet) Discharge (cfs)
1958	Aug.	16, 1958	8.43	305			
1959	May	18, 1959	10.23	1,150			
1960	May	5, 1960	8.28	290			
1961	Sept.	13, 1961	9.64	710			
1962	Oct.	13, 1961	7.99	260			
1963	May	24, 1963	9.69	750			
1964	Apr.	23, 1964	7.06	170			
1965	Sept.	21, 1965	9.67	740			

OSAGE RIVER BASIN

6-9220. South Grand River near Brownington, Mo.

Location--Lat 38°15'45", long 93°42'50", in NW¼ sec.17, T.40 N., R.25 W., at county highway bridge, 150 ft downstream from St. Louis-San Francisco Railway Co. bridge, 200 ft downstream from Deepwater Creek, and 1 mile north of Brownington.

Drainage area--1,660 sq mi, approximately. Slope--2.1 ft per mi.

Gage--Nonrecording. Datum of gage is 676.18 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 47,000 cfs and extended to 63,900 cfs by logarithmic plotting.

Bankfull stage--16 ft.

Remarks--Channel improvement of 57½ miles of main channel and some tributaries completed in 1921; all work some distance above gage. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges										
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)	
1915	Mar.	1, 1915	30	a25,000	1943	Dec.	29, 1942	23.15	12,100	
1922	Mar.	15, 1922	25.70	18,700		May	12, 1943	23.35	12,300	
	Mar.	27, 1922	20.30	13,400		May	20, 1943	37.88	52,700	
	Apr.	9, 1922	28.0	21,100		June	5, 1943	28.00	19,000	
1923	June	13, 1923	24.65	17,500	1944	Mar.	18, 1944	24.92	14,100	
						Apr.	13, 1944	26.50	16,400	
1924	June	29, 1924	18.20	11,500		Apr.	25, 1944	35.8	43,600	
1925	Apr.	6, 1925	20.25	13,300	1945	Apr.	18, 1945	26.40	16,200	
		June	3, 1925	17.15		10,600	May	27, 1945	24.20	13,200
1926	Nov.	8, 1925	15.70	9,240		May	31, 1945	24.70	13,800	
		Apr.	9, 1926	19.00	12,200	June	12, 1945	21.35	10,500	
1927	Mar.	22, 1927	27.25	16,500	1946	July	3, 1945	21.50	10,600	
		Apr.	3, 1927	25.75		14,300	Jan.	8, 1946	24.4	13,500
		Apr.	17, 1927	-	14,900	Aug.	15, 1946	23.30	12,200	
		May	10, 1927	22.49	10,900	1947	Mar.	15, 1947	24.75	14,000
		June	5, 1927	20.33	9,480		Apr.	8, 1947	26.40	16,200
1928	Oct.	5, 1927	28.52	18,600	Apr.	12, 1947	26.02	15,600		
		Feb.	9, 1928	22.57	11,000	Apr.	27, 1947	23.20	12,100	
		June	10, 1947	24.34	13,400					
1929	Nov.	19, 1928	39.9	63,900	June	27, 1947	27.15	17,600		
		Apr.	9, 1929	20.10	9,340	Mar.	22, 1948	20.15	9,420	
		May	14, 1929	29.03	21,000	June	27, 1948	26.15	15,900	
		May	20, 1929	25.73	15,200	July	24, 1948	27.40	17,900	
		June	5, 1929	20.56	9,740	July	29, 1948	30.8	25,900	
		June	25, 1929	22.62	11,500	1949	Jan.	18, 1949	20.7	9,830
1930	Feb.	11, 1930	15.32	6,880	Feb.		15, 1949	22.35	11,400	
June		11, 1949	20.1	9,340						
1931	May	21, 1931	7.85	2,820	1950	Oct.	24, 1949	22.05	11,000	
1932	Nov.	26, 1931	19.80	9,580	Aug.	30, 1950	27.20	17,600		
1933	May	13, 1933	11.94	4,840	1951	July	1, 1951	32.60	31,600	
						July	15, 1951	35.5	42,400	
						Sept.	7, 1951	25.45	14,800	
1934	Sept.	30, 1934	7.07	1,990	Sept.	10, 1951	25.90	15,500		
1935	June	4, 1935	31.29	29,400	1952	Nov.	15, 1951	20.08	9,340	
		June	29, 1935	24.95		14,200	Mar.	13, 1952	20.78	9,920
1936	Sept.	28, 1936	15.16	6,820	1953	May	3, 1953	19.16	8,620	
1937	Mar.	26, 1937	20.38	9,900	1954	May	5, 1954	14.24	5,440	
		May	24, 1937	23.83						12,800
		June	11, 1937	21.05						10,400
1938	May	26, 1938	31.89	31,100	1955	Jan.	7, 1955	20.25	9,420	
		1956	Oct.	7, 1955						22.45
1939	Apr.	17, 1939	17.8	8,040	1957	July	4, 1957	20.1	9,340	
1940	June	11, 1940	11.2	4,140	1958	Mar.	11, 1958	24.50	13,600	
1941	Apr.	20, 1941	16.0	7,210		Apr.	6, 1958	23.25	12,100	
						Aug.	4, 1958	28.25	19,400	
1942	Oct.	7, 1941	21.80	11,000	1959	May	21, 1959	23.70	12,600	
		Nov.	3, 1941	25.0						14,200
		June	21, 1942	23.97						13,000

OSAGE RIVER BASIN

Peak stages and discharges of South Grand River near Brownington, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	May 3, 1960	22.7	11,600	1962	Mar. 23, 1962	27.70	18,500
	May 8, 1960	24.0	13,000				
1961	Apr. 12, 1961	23.95	13,000	1963	May 27, 1963	22.50	11,400
	May 9, 1961	35.00	40,400	1964	June 16, 1964	23.9	12,900
	Sept. 17, 1961	34.70	39,200				
1962	Nov. 5, 1961	25.60	15,000	1965	Sept. 7, 1965	29.40	22,000
	Nov. 19, 1961	21.60	10,600		Sept. 24, 1965	24.40	13,500

a Annual peak only.

OSAGE RIVER BASIN

6-9225. Osage River at Warsaw, Mo.

Location--Lat 38°14'40", long 92°23'10", in NE¼SW¼ sec.17, T.40 N., R.22 W., at Warsaw.Drainage area--11,500 sq mi, approximately. Slope--1.46 ft per mi.Gage--Nonrecording. At various sites and datums in vicinity prior to Aug. 6, 1925. Datum of gage is 631.80 ft above mean sea level.Stage-discharge relation--Defined by current-meter measurements. Affected at times by storage in Lake of the Ozarks since 1931.Bankfull stage--31 ft.Historical data--Floods in 1872, 1874, and on Feb. 1, 1916, reached stages of 33.1, 26.2, and 35.5 ft respectively, from reports of U. S. Weather Bureau.Remarks--Gage heights adjusted to present site and datum. Peaks for period prior to Oct. 1, 1925, and after Apr. 30, 1931, computed from plotted U. S. Weather Bureau gage readings. Base for partial-duration series, 40,000 cfs.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
<u>1844</u>	June	1844	44.46	a185,000	1926	Nov.	9, 1925	20.1	41,800
<u>1855</u>		1855	39.5	a112,000	1927	Oct.	5, 1926	24.0	53,000
<u>1872</u>		1872	33.1	-		Oct.	11, 1926	24.7	55,200
<u>1874</u>		1874	26.2	-		Mar.	22, 1927	28.6	68,200
<u>1896</u>	December	1895	38.4	a108,000		Apr.	2, 1927	28.7	68,600
<u>1905</u>	April	1905	37.4	a104,000		Apr.	17, 1927	34.45	88,300
<u>1916</u>	Feb.	1, 1916	35.5	-		May	10, 1927	21.2	44,800
1918	Apr.	30, 1918	16.6	32,900	1928	June	3, 1927	26.7	61,800
1919	May	20, 1919	23.3	50,800		June	22, 1927	26.3	60,500
1920	Oct.	29, 1919	28.7	68,600		July	24, 1927	20.4	42,600
	Mar.	27, 1920	28.9	69,300	1929	Aug.	10, 1927	31.8	79,200
	Sept.	15, 1920	20.3	42,300		Aug.	21, 1927	25.9	59,200
	Sept.	28, 1920	19.7	40,700					
1921	Sept.	15, 1921	21.2	a44,800		Oct.	3, 1927	27.0	62,800
1922	Mar.	15, 1922	26.7	61,800		Oct.	9, 1927	28.2	66,900
	Mar.	20, 1922	25.7	58,500	<u>1930</u>	June	11, 1928	23.7	52,000
	Apr.	1, 1922	25.5	57,800		July	1, 1928	22.2	47,600
	Apr.	4, 1922	26.8	62,100					
	Apr.	12, 1922	34.9	90,000	<u>1935</u>				
1923	June	12, 1923	22.2	47,600	1941	June	3, 1935	34.1	a94,000
	June	17, 1923	23.4	51,100		Apr.	21, 1941	33.8	a80,000
1924	Dec.	15, 1923	19.7	40,700	1942	Nov.	2, 1941	34.5	a88,600
	May	31, 1924	22.7	49,000	<u>1943</u>				
	June	11, 1924	21.8	46,400	1946	May	22, 1943	44.54	a220,000
	June	21, 1924	21.0	44,200		Aug.	14, 1946	35.2	a76,000
	July	15, 1924	25.5	57,800	<u>1947</u>				
	July	22, 1924	21.1	44,500	1951	Apr.	27, 1947	34.40	a78,300
1925	Apr.	6, 1925	17.8	35,900		July	7, 1951	40.1	ab120,000

a Annual peak only.

b Estimated.

Note: No rating definition below stage of about 34 ft since construction of Bagnell Dam in 1931, due to backwater conditions at gage.

OSAGE RIVER BASIN

6-9226. Little Turkey Creek tributary near Warsaw, Mo.

Location.--Lat 38°10'30", long 93°17'30", in NW¼SW¼ sec.1, T.39 N., R.22 W., on right bank, just upstream from culvert on State Highway 35, 1½ miles east of Junction 35 and State Highway 65, and about 5 miles southeast of Warsaw.

Drainage area.--0.18 sq mi. Slope.--178 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 73 and 112 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Sept. 23, 1959	10.50	112				
1960	Apr. 24, 1960	10.42	110				
1961	May 5, 1961	11.10	155				
1962	Mar. 20, 1962	9.87	74				
1963	Sept. 7, 1963	10.08	86				
1964	Apr. 27, 1964	11.00	150				
1965	June 23, 1965	10.96	140				

OSAGE RIVER BASIN

6-9227. Chub Creek near Lincoln, Mo.

Location.--Lat 38°26'12", long 93°18'07", in NW¼ sec.12, T.42 N., R.22 W., on left downstream wingwall of culvert under State Highway 65, 3.4 miles north of Lincoln.

Drainage area.--2.86 sq mi. Slope.--40.3 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage since Apr. 28, 1964.

Stage-discharge relation.--Defined by indirect measurements at 324, 657, and 850 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 19, 1958	18.96	657				
1959	Nov. 16, 1958	19.68	790				
1960	May 5, 1960	18.78	620				
1961	May 5, 1961	19.52	880				
1962	Mar. 20, 1962	18.35	550				
1963	Sept. 7, 1963	19.48	750				
1964	June 14, 1964	19.50	750				
1965	Sept. 4, 1965	20.86	850				

OSAGE RIVER BASIN

6-9230. Niangua Branch at Marshfield, Mo.

Location--Lat 37°20'50", long 92°54'45", in SE¼NE¼ sec.4, T.30 N., R.18 W., at concrete culvert under County Highway W, at north edge of Marshfield.

Drainage area--0.82 sq mi. Slope--116 ft per mi.

Gage--Recording prior to Sept. 9, 1959; crest-stage gage thereafter. Datum of gage is 1,357.83 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 34 cfs and by indirect measurements at 176, 320, and 442 cfs.

Bankfull stage--6 ft.

Remarks--Base for partial-duration series, 100 cfs. Only annual peaks are shown subsequent to 1957.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1951	June	30, 1951	6.18	320	1957	June	1, 1957	3.34	104
	Aug.	27, 1951	6.31	332		June	4, 1957	4.25	164
						July	1, 1957	3.51	111
1952	Oct.	22, 1951	4.30	159	<u>1958</u>	July	14, 1958	6.95	396
1953	June	1, 1953	2.13	20.1					
1954	May	2, 1954	3.06	87	1960	May	8, 1960	4.33	178
1955	Oct.	11, 1954	3.81	139	1961	Apr.	30, 1961	6.33	330
1956	June	25, 1956	4.32	174	1962			(a)	(b)
1957					1963	May	26, 1963	4.02	154
	May	21, 1957	7.32	438					
	May	22, 1957	4.38	181	1964	July	2, 1964	5.38	256
	May	22, 1957	4.77	210	1965	July	12, 1965	6.88	386

a Stage did not reach gage during year.

b Less than 100 cfs.

OSAGE RIVER BASIN

6-9240. Niangua River near Decaturville, Mo.
(Published as "near Roach" prior to 1931)

Location.--Lat 37°56'20", long 92°50'30", in NW¼ sec.19, T.37 N., R.17 W., 0.3 mile downstream from hydroelectric plant of Sho-Me Power Cooperative, Inc., and 8 miles northwest of Decaturville.

Drainage area.--627 sq mi; about 698 sq mi prior to Oct. 1, 1930. Slope.--4.7 ft per mi.

Gage.--Nonrecording Nov. 18, 1922, to Sept. 30, 1930; recording gage thereafter. At site 18 miles downstream and at datum about 51.15 ft lower prior to Sept. 30, 1930. Datum of gage is about 665.9 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current meter measurements.

Bankfull stage.--9 ft.

Historical data.--Flood of September 1914 reached a stage of 28 ft at present site and 23.8 at former site near Roach.

Remarks.--Records for site "near Decaturville" and "near Roach" considered equivalent for flood-frequency study. Low flows since 1931 regulated by hydroelectric plant upstream; peak discharges not materially affected. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1923	June	12, 1923	3.75	1,810	1943	May	19, 1943	21.84	33,400
1924	May	30, 1924	13.30	15,200	1944	Apr.	12, 1944	13.90	11,600
	Aug.	12, 1924	11.30	11,100					
1925	Dec.	21, 1924	11.90	12,800	1945	Mar.	4, 1945	13.15	10,300
						Mar.	21, 1945	13.02	9,920
1926	Nov.	9, 1925	8.52	7,180		Apr.	3, 1945	14.97	14,000
						Apr.	14, 1945	19.46	26,200
1927	Mar.	21, 1927	15.3	22,100		Sept.	26, 1945	17.17	19,600
1927	Apr.	2, 1927	15.1	21,500	1946	Aug.	15, 1946	14.75	13,500
	May	10, 1927	12.1	13,200					
1927	June	1, 1927	16.5	25,700	1947	Apr.	12, 1947	13.47	10,800
	June	22, 1927	11.2	13,400		Apr.	26, 1947	20.37	29,000
1928	Apr.	7, 1928	11.80	12,400	1948	June	23, 1948	16.33	17,200
						June	10, 1928	15.80	23,600
1929	May	7, 1929	13.12	15,900	1949	June	9, 1949	13.2	10,300
						May	19, 1929	10.6	9,520
1930	Jan.	15, 1930	8.80	6,560	1950	Oct.	23, 1949	13.12	10,100
						Jan.	5, 1950	17.55	20,700
1931	Aug.	7, 1931	12.60	9,210		Jan.	14, 1950	14.4	12,700
						May	31, 1950	16.29	17,200
1932	June	28, 1932	17.00	19,000	1951	July	2, 1951	16.06	16,700
1933	Dec.	25, 1932	15.62	17,000	1952	Feb.	3, 1952	10.23	6,220
						Apr.	17, 1933	13.70	11,800
1933	May	14, 1933	16.30	17,200	1953	Apr.	25, 1953	6.77	3,020
1934	Apr.	17, 1934	8.73	4,410	1954	May	4, 1954	5.32	1,720
1935	Mar.	13, 1935	17.12	19,300	1955	Mar.	22, 1955	12.67	9,380
						May	29, 1935	12.70	9,730
1935	June	4, 1935	13.10	10,500	1956	June	1, 1956	4.94	1,450
						June	15, 1935	14.40	13,500
1935	June	21, 1935	15.90	18,000	1957	May	18, 1957	13.15	10,300
						May	24, 1957	15.95	16,400
1936	Sept.	28, 1936	11.94	8,280	1958	Mar.	24, 1958	17.0	19,000
						July	13, 1958	15.0	14,000
1937	Jan.	16, 1937	13.45	11,100		July	18, 1958	17.0	19,000
						June	9, 1937	13.40	11,100
1938	May	24, 1938	11.26	7,320	1959	Feb.	11, 1959	11.38	7,330
1939	Apr.	6, 1939	12.40	9,170	1960	May	6, 1960	10.70	6,440
						Apr.	17, 1939	12.43	9,170
1940	May	2, 1940	10.31	6,020	1961	May	2, 1961	17.18	19,600
						May	7, 1961	19.85	27,200
1941	Apr.	20, 1941	20.4	29,000		May	9, 1961	17.10	19,300
1942	Oct.	6, 1941	18.20	26,900	1962	Mar.	21, 1962	12.82	9,560
						Nov.	1, 1941	13.39	11,100
1942	June	18, 1942	21.06	31,200	1963	May	28, 1963	11.87	8,060
1943	Dec.	28, 1942	20.27	28,700	1964	Apr.	6, 1964	9.59	5,250
						May	12, 1943	14.68	13,300
1943	May	12, 1943	14.68	13,300	1965	Sept.	5, 1965	14.73	13,300

OSAGE RIVER BASIN

6-9252. Starks Creek at Preston, Mo.

Location.--Lat 37°56'30", long 93°11'30", on line between NW¼ and SW¼ sec.24, T.37 N., R.21 W., at bridge on U. S. Highway 54, 0.6 mile east of Preston.

Drainage area.--4.18 sq mi. Slope.--31.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurement below 140 cfs and by indirect measurements at 807 and 1,460 cfs.

Remarks.--Only annual peaks are shown.

				Peak stages and discharges			
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Discharge (cfs)
1957	May	17, 1957	9.56	1,400			
1958	July	31, 1958	6.70	498			
1959	Feb.	9, 1959	7.01	562			
1960	May	6, 1960	8.22	870			
1961	May	5, 1961	9.42	1,320			
1962	Sept.	9, 1962	7.74	741			
1963	July	28, 1963	6.25	411			
1964	Apr.	5, 1964	7.68	740			
1965	June	23, 1965	10.57	1,900			

OSAGE RIVER BASIN

6-9252.7. Dry Auglaize Creek tributary near Lebanon, Mo.

Location.--Lat 37°42'00", long 92°37'30", in NE¼SW¼ sec.6, T.34 N., R.15 W., on right bank just upstream from culvert under U. S. Highway 66 at state secondary road MM, and 2½ miles northeast of Lebanon.

Drainage area.--0.21 sq mi. Slope.--115 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Devined by current-meter measurement at 5.46 cfs and by indirect measurements at 44.7 and 167 cfs.

Remarks.--Only annual peaks are shown.

				Peak stages and discharges			
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Discharge (cfs)
1955	June	25, 1955	7.42	26			
1956	June	24, 1956	8.23	57			
1957	May	22, 1957	10.42	167			
1958	July	16, 1958	8.13	53			
1959	July	16, 1959	8.32	60			
1960	July	25, 1960	8.07	52			
1961	May	5, 1961	9.36	110			
1962	Mar.	20, 1962	9.1	95			
1963	Oct.	13, 1962	7.55	31			
1964	Apr.	5, 1964	7.64	34			
1965	July	10, 1965	7.89	43			

OSAGE RIVER BASIN

6-9253. Prairie Branch near Decaturville, Mo.

Location.--Lat 37°52'30", long 92°42'30", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.36 N., R.16 W., on right downstream wingwall of bridge on Stage Highway 5, 2.4 miles south of Decaturville.

Drainage area.--1.48 sq mi. Slope.--84.1 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurement at 2 and 42 cfs and by indirect measurements at 466 and 1,490 cfs.

Remarks.--Only annual peaks are shown.

				Peak stages and discharges				
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar.	20, 1955	9.32	170				
1956	July	3, 1956	10.82	470				
1957	May	17, 1957	12.63	1,490				
1958	July	16, 1958	13.06	2,000				
1959	June	11, 1959	11.30	680				
1960	Oct.	4, 1959	10.36	350				
1961	May	8, 1961	12.57	1,450				
1962	Mar.	20, 1962	9.34	150				
1963	Oct.	13, 1962	12.54	1,430				
1964	Apr.	23, 1964	9.66	280				
1965	Sept.	5, 1965	13.23	2,200				

OSAGE RIVER BASIN

6-9254.5. Little Gravois Creek near Versailles, Mo.

Location.--Lat 38°23'58", long 92°49'30", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.17, T.42 N., R.17 W., on right downstream abutment of bridge on State Highway 5, 2 $\frac{1}{2}$ miles south of Versailles.

Drainage area.--4.74 sq mi. Slope.--64.0 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by indirect measurements at 274, 1,080, and 4,960 cfs.

Remarks.--Only annual peaks are shown.

				Peak stages and discharges				
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Feb.	19, 1955	11.00	250				
1956	Oct.	5, 1955	12.73	760				
1957	May	17, 1957	11.14	274				
1958	July	8, 1958	16.45	4,960				
1959	Sept.	16, 1959	15.40	3,300				
1960	May	6, 1960	15.89	3,800				
1961	May	8, 1961	13.79	1,350				
1962	Mar.	20, 1962	11.1	270				
1963	Mar.	4, 1963	11.96	450				
1964	June	14, 1964	12.86	1,080				
1965	Sept.	4, 1965	14.73	2,800				

OSAGE RIVER BASIN

6-9260. Osage River near Bagnell, Mo.

Location--Lat 38°12'26", long 92°35'23", in N½SE¼ sec.21, T.40 N., R.15 W., 1½ miles upstream from Bagnell, and 3 miles downstream from hydroelectric plant of Union Electric Co. of Missouri.

Drainage area--14,000 sq mi, approximately. Slope--1.20 ft per mi.

Gage--Nonrecording Oct. 1, 1880, to Oct. 14, 1930; recording gage thereafter. At various sites and datums prior to May 5, 1925. Datum of gage is 548.57 ft above mean sea level, datum of 1929.

Bankfull stage--24 ft.

Remarks--Flow regulated by Lake of the Ozarks (usable capacity, 1,246,000 acre-ft since 1931. Annual peaks since 1931 are the computed maximum daily inflows into the Lake of the Ozarks. Records prior to May 5, 1925, furnished by Union Electric Co. of Missouri and computed from rating defined by measurements made after May 1925. Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	-	a164,000	1923	June 18, 1923	-	a54,000
				1924	July 17, 1924	-	a64,300
1881	Feb. 10, 1881	-	a31,500	1925	Apr. 7, 1925	-	a40,900
1882	Feb. 23, 1882	-	a119,000				
1883	Feb. 17, 1883	-	a82,100	1926	Nov. 10, 1926	-	52,400
1884	May 4, 1884	-	a66,500	1927	Apr. 17, 1927	-	106,000
1885	Sept. 15, 1885	-	a86,500	1928	Oct. 11, 1927	-	70,600
				1929	May 21, 1929	-	106,000
1886	May 9, 1886	-	a44,100	1930	Feb. 10, 1930	-	39,000
1887	Apr. 23, 1887	-	a30,000				
1888	Feb. 1, 1888	-	a45,800	1931	May 20, 1931	-	b55,500
1889	May 31, 1889	-	a72,200	1932	Nov. 27, 1931	-	b42,600
1890	Jan. 15, 1890	-	a73,700	1933	May 13, 1933	-	b85,200
				1934	Sept. 14, 1934	-	b19,300
1891	June 8, 1891	-	a76,500	1935	June 3, 1935	-	b117,000
1892	June 4, 1892	-	a94,300				
1893	May 1, 1893	-	a91,000	1936	Sept. 28, 1936	-	b82,400
1894	May 8, 1894	-	a69,800	1937	June 10, 1937	-	b90,300
1895	July 9, 1895	-	a54,900	1938	May 24, 1938	-	b85,300
				1939	May 9, 1939	-	b65,800
1896	Dec. 22, 1895	-	a126,000	1940	June 24, 1940	-	b37,300
1897	Jan. 5, 1897	-	a102,000				
1898	Mar. 24, 1898	-	a66,500	1941	Apr. 19, 1941	-	b145,000
1899	Apr. 25, 1899	-	a54,500	1942	Oct. 5, 1941	-	b152,000
1900	Mar. 8, 1900	-	a48,200	1943	May 19, 1943	-	b219,000
				1944	May 1, 1944	-	b116,000
1901	Mar. 12, 1901	-	a41,900	1945	Apr. 16, 1945	-	b128,000
1902	May 27, 1902	-	a52,600				
1903	Mar. 10, 1903	-	a79,200	1946	Aug. 14, 1946	-	b214,000
1904	Apr. 28, 1904	-	a122,000	1947	Apr. 25, 1947	-	b140,000
1905	Aug. 1, 1905	-	a78,000	1948	June 22, 1948	-	b139,000
				1949	Feb. 17, 1949	-	b71,400
1906	Aug. 26, 1906	-	a52,000	1950	June 10, 1950	-	b79,400
1907	May 17, 1907	-	a66,200				
1908	Apr. 13, 1908	-	a87,800	1951	July 6, 1951	-	b134,000
1909	May 13, 1909	-	a78,000	1952	Feb. 4, 1952	-	b64,500
1910	June 11, 1910	-	a103,000	1953	Apr. 25, 1953	-	b31,700
				1954	May 3, 1954	-	b35,900
1911	Apr. 7, 1911	-	a49,600	1955	Feb. 20, 1955	-	b56,100
1912	May 1, 1912	-	a108,000				
1913	Mar. 27, 1913	-	a89,600	1956	Oct. 6, 1955	-	b41,000
1914	Sept. 17, 1914	-	a55,000	1957	May 25, 1957	-	b84,500
1915	Sept. 24, 1915	-	a89,600	1958	July 31, 1958	-	b91,000
				1959	Feb. 10, 1959	-	b57,000
1916	Feb. 1, 1916	-	a118,000	1960	May 6, 1960	-	b116,700
1917	June 24, 1917	-	a27,400				
1918	Apr. 30, 1918	-	a42,300	1961	May 8, 1961	-	b154,500
1919	May 19, 1919	-	a60,600	1962	Mar. 21, 1962	-	b102,000
1920	Oct. 30, 1919	-	a101,000	1963	May 27, 1963	-	b56,000
				1964	June 14, 1964	-	b88,800
1921	Mar. 31, 1921	-	a57,600	1965	Sept. 5, 1965	-	b90,000
1922	Apr. 17, 1922	-	a120,000				

a Maximum daily discharge.

b Estimated maximum daily reservoir inflow.

OSAGE RIVER BASIN

6-9261.5. Jack Buster Creek at Eugene, Mo.

Location.--Lat 38°21'10", long 92°24'00", in NW¼NE¼ sec.31, T.42 N., R.13 W., on right bank just upstream from culvert under State Highway 17, at east edge of the town of Eugene.

Drainage area.--0.17 sq mi. Slope.--137 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 72 and 290 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 5, 1961	9.10	290				
1962	Mar. 20, 1962	5.13	40				
1963	May 4, 1963	6.18	92				
1964	June 13, 1964	6.01	82				
1965	Sept. 13, 1965	9.02	285				

OSAGE RIVER BASIN

6-9262. Van Cleve Branch near Meta, Mo.

Location.--Lat 38°13'35", long 92°09'40", in the SE¼NE¼ sec.8, T.40 N., R.11 W., 20 ft upstream from concrete culvert on State Highway 133, 6.5 miles south of Meta.

Drainage area.--0.75 sq mi. Slope.--95.4 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 14.7 cfs and by indirect measurements at 345, 474, 577, and 1,180 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 22, 1957	a6.35	1,200				
1958	June 10, 1958	b4.48	490				
1959	Aug. 31, 1959	1.99	55				
1960	Oct. 10, 1959	2.42	92				
1961	May 5, 1961	c3.25	577				
1962	Mar. 20, 1962	1.93	50				
1963	May 25, 1963	1.94	51				
1964	Apr. 5, 1964	1.68	30				
1965	Sept. 13, 1965	d4.66	1,600				

a Outside gage height, 7.45 ft.

b Outside gage height, 5.55 ft.

c Outside gage height, 6.31 ft.

b Outside gage height, 7.71 ft.

OSAGE RIVER BASIN

6-9265. Osage River near St. Thomas, Mo.

Location--Lat 38°20'25", long 92°13'25", in SE¼SW¼ sec.35, T.42 N., R.12 W., on left bank 0.5 mile downstream from Sugar Creek, 2½ miles south of St. Thomas, and at mile 43.1

Drainage area--14,500 sq mi, approximately. Slope--1.14 ft per mi.

Gage--Recording. Datum of gage is 528.06 ft above mean sea level, datum of 1929.

Bankfull stage--23 ft.

Remarks--Flow regulated by Lake of the Ozarks. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 1844	39.4	-				
1932	Nov. 25, 1931	16.90	45,300				
1933	May 26, 1933	21.30	59,900				
1934	Mar. 3, 1934	8.30	13,500				
1935	June 4, 1935	33.00	113,000				
1936	Nov. 12, 1935	13.88	31,500				
1937	June 11, 1937	27.45	88,200				
1938	May 27, 1938	25.96	81,400				
1939	April 18, 1939	12.59	25,400				
1940	June 25, 1940	14.94	33,800				
1941	April 22, 1941	32.40	116,000				
1942	Oct. 7, 1941	34.40	120,000				
1943	May 20, 1943	43.8	216,000				
1944	May 4, 1944	29.09	91,500				
1945	April 18, 1945	31.10	105,000				
1946	Aug. 15, 1946	31.5	107,000				
1947	Nov. 3, 1946	29.9	98,500				
1948	June 27, 28, 1948	30.67	103,000				
1949	Feb. 19, 1949	22.66	64,100				
1950	June 10, 1950	23.05	65,400				
1951	July 13, 1951	35.2	130,000				
1952	Nov. 16, 1951	20.70	57,300				
1953	April 24, 1953	11.99	24,900				
1954	May 17, 1954	9.22	15,800				
1955	Feb. 23, 1955	18.61	48,900				
1956	Oct. 6, 1955	14.55	34,000				
1957	May 27, 1957	23.82	70,100				
1958	Aug. 2, 1958	27.95	87,900				
1959	Feb. 10, 1959	13.70	30,800				
1960	May 8, 1960	25.20	75,400				
1961	May 13, 1961	37.10	149,000				
1962	Mar. 23, 1962	24.50	74,800				
1963	May 29, 1963	19.40	52,400				
1964	June 16, 1964	22.85	67,100				
1965	Sept. 6, 1965	23.40	69,800				

OSAGE RIVER BASIN

6-9268. Long Branch near Vienna, Mo.

Location--Lat 38°11'00", long 92°05'05", in SW¼NW¼ sec.30, T.40 N., R.10 W., on left bank just upstream from culvert under State road 42, 7.5 miles west of Vienna.

Drainage area--0.32 sq mi. Slope--112 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by current-meter measurements below 7.67 cfs and by indirect measurements at 97.4 and 365 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 22, 1957	9.98	365				
1958	June 15, 1958	6.71	97				
1959	-	(a)	(b)				
1960	July 22, 1960	7.38	130				
1961	May 5, 1961	6.66	90				
1962	Apr. 30, 1962	7.43	135				
1963	May 16, 1963	8.61	240				
1964	Apr. 4, 1964	6.4	71				
1965	Sept. 13, 1965	10.44	400				

a Stage did not reach gage during year.

b Less than 25 cfs.

OSAGE RIVER BASIN

6-9270. Maries River at Westphalia, Mo.

Location--Lat 38°25'55", long 91°59'20", in NE¼ sec.35, T.43 N., R.10 W., on right bank 200 ft upstream from bridge on U. S. Highway 63, three-quarters of a mile southeast of Westphalia, and 1½ miles downstream from Little Maries Creek.

Drainage area--257 sq mi. Slope--8.91 ft per mi.

Gage--Nonrecording at site 200 ft downstream at present datum prior to June 8, 1951, recording gage at present site thereafter.
Datum of gage is 542.74 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--9 ft.

Historical data--Flood of June 8, 1937, reached a stage of 22.8 ft, from information furnished by local residents.

Remarks--Base for partial-duration series, 6,000 cfs.

		Peak stages and discharges					
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 22, 1948	15.15	14,000	1957	May 17, 1957	18.21	20,000
	June 27, 1948	12.2	8,730		May 23, 1957	17.68	19,000
1949	June 3, 1949	15.31	14,200		June 28, 1957	10.03	6,100
	June 14, 1949	13.58	11,200		June 30, 1957	14.10	11,900
	Sept. 13, 1949	10.23	6,320	1958	Mar. 9, 1958	11.60	7,930
					June 11, 1958	12.60	9,340
1950	Oct. 20, 1949	10.5	6,650		June 12, 1958	12.76	9,660
	Jan. 4, 1950	16.0	15,600		June 15, 1958	10.16	6,320
	Jan. 13, 1950	10.9	7,090	1959	Feb. 10, 1959	13.12	10,300
	May 19, 1950	10.8	6,980		May 17, 1959	11.74	8,060
	May 27, 1950	14.0	11,800	1960	Apr. 30, 1960	10.27	6,730
1951	Feb. 20, 1951	12.9	9,830		May 6, 1960	11.73	8,380
	Mar. 11, 1951	11.04	7,200	1961	May 6, 1961	13.73	11,300
	May 22, 1951	9.87	6,000		May 8, 1961	14.61	12,900
	June 9, 1951	10.58	6,760		June 9, 1961	10.05	6,420
	June 30, 1951	13.22	10,300		July 23, 1961	11.05	7,500
	July 13, 1951	13.14	10,200	1962	Jan. 26, 1962	11.45	7,170
	Aug. 27, 1951	10.98	7,320		Mar. 21, 1962	15.40	14,400
	Sept. 10, 1951	9.94	6,100		May 1, 1962	11.03	7,500
1952	Oct. 6, 1951	11.63	7,930	1963	Mar. 5, 1963	11.31	7,860
	Feb. 2, 1952	9.86	6,000		May 26, 1963	10.88	7,390
1953	Apr. 24, 1953	10.00	6,100	1964	Apr. 5, 1964	11.75	8,520
1954	June 9, 1954	9.58	5,700		May 28, 1964	13.20	10,500
1955	Feb. 20, 1955	11.13	7,320	1965	Apr. 4, 1965	11.58	8,250
1956	June 25, 1956	9.53	5,600		June 3, 1965	10.66	7,170
1957	Feb. 26, 1957	12.6	9,340		Sept. 5, 1965	10.49	6,950
	Mar. 25, 1957	10.68	6,870		Sept. 14, 1965	10.91	7,390
	Apr. 4, 1957	10.03	6,100		Sept. 22, 1965	12.40	9,360

a Backwater from ice.

MISSOURI RIVER MAIN STEM

6-9270.2. Missouri River near Bonnots Mill, Mo.
(Published as "at Isbell" prior to 1932)

Location.--Lat 38°35'44", long 91°56'31", in SE¼NE¼ sec.5, T.44 N., R.9 W., half a mile downstream from Osage River, and 1½ miles east of Bonnots Mill.

Drainage area.--523,400 sq mi, approximately.

Gage.--Nonrecording prior to Nov. 11, 1931; recording gage thereafter. At site 2 miles downstream at datum 2.49 ft lower prior to Nov. 11, 1931. Datum of gage is 511.25 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--21 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	June 8, 1929	21.1	399,000				
1930	June 19, 1930	13.9	166,000				
1931	May 20, 1931	10.5	92,600				
1932	Nov. 29, 1931	19.44	265,000				
1933	May 27, 1933	15.5	142,000				
1934	Mar. 10, 1934	10.1	80,700				
1935	June 6, 1935	27.05	417,000				
1936	Feb. 27, 1936	13.00	-				
	Mar. 15, 1936	-	128,000				

AUXVASSE CREEK BASIN

6-9271. Doane Branch near Kingdom City, Mo.

Location.--Lat 38°58'20", long 91°49'40", in NE¼ sec.17, T.48 N., R.8 W., on left bank just upstream from culvert on U. S. 40, 0.9 mile east of Auxvasse Creek, and about 6 miles east of Kingdom City.

Drainage area.--0.54 sq mi. Slope.--70.2 ft per mi.

Gage.--Crest-stage gage installed Oct. 8, 1954. Supplemental recording gage July 21, 1959, to July 10, 1962. Crest-stage gage removed Aug. 13, 1963 for new culvert construction and replaced Apr. 28, 1965.

Stage-discharge relation.--Defined by indirect measurement at 54, 72, 136, and 623 cfs prior to new culvert construction.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	5.11	54				
1956	July 16, 1956	5.69	73				
1957	June 30, 1957	14.20	623				
1958	May 31, 1958	7.54	155				
1959	Feb. 9, 1959	6.71	125				
1960	Oct. 10, 1959	7.14	140				
1961	May 5, 1961	6.23	93				
1962	Mar. 20, 1962	5.18	55				
1963	-	(a)	(b)				
1965	Sept. 16, 1965	11.01	(c)				

a Stage below bottom of gage.

b Discharge less than 50 cfs.

c Discharge not determined.

AUXVASSE CREEK BASIN

6-9272. Big Hollow near Fulton, Mo.

Location.--Lat 38°48'45", long 91°56'45", in NW¼ sec.33, T.47 N., R.9 W., at culvert on County Highway C, 2 miles south of Fulton.

Drainage area.--4.05 sq mi. Slope.--34.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 530, 611, and 936 cfs by indirect measurement. Defined below 27 cfs by current-meter measurement.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 29, 1957	a4.28	616				
1958	Aug. 1, 1958	b5.80	936				
1959	Oct. 9, 1958	5.81	936				
1960	Oct. 10, 1959	4.45	649				
1961	May 5, 1961	4.62	686				
1962	Feb. 8, 1962	3.90	526				
1963	May 17, 1963	1.95	104				
1964	May 28, 1964	3.90	526				
1965	Sept. 4, 1965	6.20	1,020				

a Outside gage height, 4.6 ft.

b Outside gage height, 5.9 ft.

GASCONADE RIVER BASIN

6-9276. Wheeler Branch near Mountain Grove, Mo.

Location.--Lat 37°06'52", long 92°16'37", in SW¼NE¼ sec.17, T.28 N., R.12 W., on left bank just upstream from bridge on county road D, three-quarters of a mile southwest of Mountain Grove.

Drainage area.--1.34 sq mi. Slope.--48.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 262, 549, and 880 cfs by indirect measurement. Defined below 50 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	3.87	262				
1956	May 14, 1956	4.95	549				
1957	May 25, 1957	3.99	299				
1958	June 16, 1958	6.32	940				
1959	Jan. 21, 1959	3.47	165				
1960	July 25, 1960	4.15	330				
1961	May 7, 1961	6.26	930				
1962	June 9, 1962	3.69	220				
1963	June 16, 1963	4.00	295				
1964	Apr. 4, 1964	3.89	270				
1965	Aug. 28, 1965	4.08	320				

GASCONADE RIVER BASIN

6-9278. Osage Fork at Drynob, Mo.

Location--Lat 37°38'00", long 92°27'12", in NW¼NE¼ sec.27, T.34 N., R.14 W., on downstream end of right bridge pier on State Highway 32, 0.1 mile downstream from Walker Hollow, 0.6 mile southwest of Drynob, 1.6 miles upstream from Core Creek, and 12 miles southeast of Lebanon.

Drainage area--404 sq mi.

Gage--Recording. Datum of gage is 927.85 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements.

Historical data--Maximum stage known about 31 ft in 1903 from information by local resident.

Remarks--Base for partial-duration series, 5,000 cfs.

Water year	Date	Gage height (feet)	Peak stages and discharges		Water year	Date	Gage height (feet)	Discharge (cfs)
			Discharge (cfs)					
1963	May 27, 1963	14.34	8,970					
1964	Apr. 6, 1964	9.34	3,360					
1965	Apr. 4, 1965	12.35	6,450					
	Apr. 6, 1965	15.68	11,200					
	May 26, 1965	11.35	5,240					
	Sept. 6, 1965	12.56	6,450					

GASCONADE RIVER BASIN

6-9280. Gasconade River near Hazlegreen, Mo

Location.--Lat 37°45'35", long 92°27'05", in SE¼SE¼ sec.15, T.35 N., R.14 W., at bridge on U. S. Highway 66, 1 mile downstream from Osage Fork, and 1½ miles west of Hazlegreen.

Drainage area.--1,250 sq mi, approximately. Slope.--3.97 ft per mi.

Gage.--Nonrecording prior to Aug. 21, 1958; recording gage thereafter. Datum of gage is 844.75 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 68,000 cfs.

Bankfull stage.--21 ft.

Historical data.--Maximum stage known, 30.6 ft in January 1916.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1915	Aug.	1915	30.4	a86,000	1944	Mar.	1, 1944	12.4	9,860
1916	Jan.	1916	30.6	-	1945	Feb.	22, 1945	20.60	27,800
1929	Apr. 10, May 7, May 14,	1929	15.60	17,700	Mar.	3, 1945	18.40	21,200	
			16.21	19,000	Mar.	7, 1945	20.30	26,800	
			14.08	14,600	Mar.	20, 1945	17.30	18,700	
					Mar.	26, 1945	12.50	10,000	
1930	Jan. 15,	1930	14.48	15,200	Mar.	31, 1945	15.60	15,200	
					Apr.	3, 1945	20.00	25,800	
					Apr.	14, 1945	29.6	76,400	
1931	Aug.	18, 1931	6.96	4,100	June	18, 1945	17.60	19,300	
1932	June 28,	1932	13.12	12,700	Sept.	25, 1945	13.00	10,800	
1933	Dec. 25, Apr. 17, May 15,	1932	14.12	14,600	Feb.	15, 1946	18.90	22,500	
		1933	17.70	22,300	May	26, 1946	15.75	15,600	
		1933	25.75	53,800	Aug.	14, 1946	19.0	22,800	
1934	Mar. 29,	1934	6.09	3,100	1947	Nov.	11, 1946	17.60	19,300
					Apr.	12, 1947	12.49	10,000	
					Apr.	26, 1947	26.9	58,000	
1935	Mar. 12, June 4, June 8, June 17, June 21,	1935	27.50	68,700	1948	Mar.	3, 1948	12.65	10,200
			17.08	20,600		June	18, 1948	14.2	12,700
			12.98	12,500		June	21, 1948	14.8	13,700
			18.32	23,200		June	28, 1948	16.1	16,200
			18.59	23,800					
1936	Nov.	11, 1935	8.51	5,600	1949	Jan.	25, 1949	14.1	12,800
1937	Jan. 9, Jan. 16, Feb. 1, May 3,	1937	13.05	12,500	Jan.	28, 1949	12.2	10,100	
			15.90	18,100	Feb.	16, 1949	19.5	24,100	
			14.50	15,400	July	8, 1949	12.2	10,100	
			17.10	20,600	1950	Oct.	12, 1949	19.0	22,700
						Oct.	22, 1949	24.75	44,600
1938	Jan. 26, Feb. 19, May 8, May 24,	1938	17.00	18,000	Dec.	22, 1949	13.0	11,200	
			19.2	23,300	Jan.	4, 1950	18.2	20,700	
			17.97	20,200	Jan.	14, 1950	17.5	19,100	
			17.99	20,200	Feb.	14, 1950	13.6	12,100	
					Apr.	5, 1950	12.6	10,700	
1939	Nov. 8, Feb. 21, Apr. 18, May 28,	1938	16.15	16,400	Apr.	30, 1950	13.0	11,200	
			15.75	15,600	May	11, 1950	24.0	40,500	
			17.22	18,500	May	20, 1950	12.5	10,500	
			13.80	12,000	May	31, 1950	14.0	12,700	
					June	11, 1950	14.1	12,800	
1940	Apr.	13, 1940	12.7	10,300	1951	Feb.	20, 1951	16.25	16,400
1941	Apr. 17, Apr. 20,	1941	18.80	22,200	Mar.	12, 1951	15.0	14,300	
			25.8	54,500	Apr.	8, 1951	12.3	10,200	
1942	Oct. 19, Nov. 1, Apr. 10, June 14, June 18,	1941	14.60	13,400	May	20, 1951	15.31	14,800	
			18.04	20,200	July	1, 1951	23.00	36,000	
			16.08	16,200	July	5, 1951	13.65	12,100	
			12.83	10,500	July	13, 1951	13.0	11,200	
			21.6	31,500	Aug.	28, 1951	14.4	13,300	
1943	Oct. 31, Dec. 28, May 12, May 19, June 23,	1942	15.30	14,600	1952	Nov.	13, 1951	15.00	14,300
			23.80	41,800	Nov.	17, 1951	16.50	17,000	
			24.00	42,900	Feb.	3, 1952	15.00	14,300	
			25.3	51,000	Mar.	12, 1952	12.48	10,500	
			13.20	11,100	Apr.	5, 1952	12.30	10,200	
					Apr.	13, 1952	14.75	14,000	

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River near Hazlegreen, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 24, 1953	10.0	7,100	1958	July 13, 1958	15.65	15,800
1954	May 3, 1954	6.78	3,460		July 18, 1958	25.30	46,500
1955	Feb. 21, 1955	16.0	16,000	1959	May 29, 1959	12.50	10,200
	Mar. 22, 1955	15.75	15,600	1960	Nov. 6, 1959	12.60	10,300
1956	May 16, 1956	22.08	35,900		Dec. 19, 1959	15.06	14,800
1957	Feb. 27, 1957	12.45	11,300	1961	May 2, 1961	17.65	20,100
	Apr. 5, 1957	18.85	24,800		May 6, 1961	15.70	16,000
	May 19, 1957	11.85	10,300		May 9, 1961	23.60	39,400
	May 24, 1957	22.82	38,600	1962	Mar. 21, 1962	13.30	11,400
	May 26, 1957	18.50	23,800	1963	May 27, 1963	19.50	25,500
	June 3, 1957	19.85	27,800	1964	Apr. 6, 1964	15.30	15,300
	June 6, 1957	11.80	10,300	1965	Apr. 5, 1965	13.33	11,800
1958	Dec. 18, 1957	25.77	49,000		Apr. 7, 1965	20.42	28,200
	Mar. 10, 1958	12.43	10,000		Sept. 7, 1965	15.18	15,200
	Mar. 24, 1958	21.33	30,900				
	July 9, 1958	18.00	21,000				

a Annual peak only

GASCONADE RIVER BASIN

6-9282. Laquey Branch near Hazlegreen, Mo.

Location.--Lat 37°46'25", long 92°21'52", SW¼SE¼ sec.9, T.35 N., R.13 W., 30 ft upstream from concrete culvert under eastbound lane of U. S. Highway 66, 3 miles east of Hazlegreen.

Drainage area.--1.58 sq mi. Slope.--87.4 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 3.61 cfs and by indirect measurements at 519, 825, and 2,660 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	July 16, 1958	3.70	410				
1959	May 17, 1959	a4.09	519				
1960	Dec. 17, 1959	2.88	185				
1961	May 5, 1961	b5.09	825				
1962	Apr. 30, 1962	4.19	550				
1963	Oct. 13, 1962	c4.44	450				
1964	May 20, 1964	d4.53	465				
1965	Sept. 4, 1965	(e)	2,670				

a Outside gage height, 4.92 ft.

b Outside gage height, 6.44 ft.

c Outside gage height, 4.44 ft.

d Outside gage height, 4.5 ft.

e Outside gage height, 13.4 ft.

GASCONADE RIVER BASIN

6-9285. Gasconade River near Waynesville, Mo.

Location--Lat 37°52'20", long 92°13'40", in SE¼SE¼ sec.3, T.36 N., R.12 W., at county highway bridge, 2½ miles downstream from Roubidoux Creek, and 4 miles north of Waynesville.

Drainage area--1,680 sq mi, approximately. Slope--3.18 ft per mi.

Gage--Nonrecording prior to Oct. 3, 1958, recording gage thereafter. Datum of gage is 738.60 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--15 ft.

Remarks--Peaks for period prior to July 19, 1921, computed from plotted readings by Engineering Experiment Station, University of Missouri. Base for partial-duration series, 17,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 22, 1915	24.3	89,000	1938	Feb. 20, 1938	16.44	24,600
	Aug. 28, 1915	14.1	20,300		May 9, 1938	14.74	17,800
1916	Jan. 14, 1916	16.7	26,800		May 25, 1938	15.11	19,100
	Feb. 1, 1916	23.0	77,000	1939	Apr. 19, 1939	14.9	18,500
1917	May 2, 1917	8.35	8,600		Mar. 12, 1940	11.8	10,600
				1941	Apr. 20, 1941	20.4	57,700
1918	Apr. 28, 1918	13.1	18,200		Nov. 2, 1941	15.4	20,700
	May 14, 1918	15.4	23,100	1942	June 19, 1942	17.8	33,200
1919	May 17, 1919	12.35	16,700		Dec. 29, 1942	20.7	59,400
				1943	May 12, 1943	19.25	44,700
1920	Oct. 28, 1919	15.75	24,000		May 20, 1943	21.2	64,700
	Nov. 3, 1919	14.8	20,500				
	Sept. 15, 1920	14.25	19,300	1944	Mar. 1, 1944	10.5	8,470
1921	Mar. 29, 1921	15.0	20,900				
	Apr. 28, 1921	16.1	23,100	1945	Feb. 23, 1945	16.35	25,300
1922	Mar. 31, 1922	14.14	19,200		Mar. 4, 1945	16.08	23,900
					Mar. 8, 1945	16.8	27,200
1923	Mar. 13, 1923	9.10	9,110		Mar. 21, 1945	15.0	18,800
					Apr. 4, 1945	17.0	28,100
1924	May 29, 1924	13.00	16,900		Apr. 14, 1945	23.5	81,600
					June 19, 1945	14.25	17,400
1925	Dec. 21, 1924	17.50	30,800	1946	Feb. 15, 1946	16.30	24,800
					Aug. 15, 1946	17.57	31,600
1926	Nov. 9, 1925	9.80	10,500	1947	Nov. 12, 1946	14.40	18,000
					Apr. 26, 1947	20.6	55,700
1927	Apr. 2, 1927	17.50	30,800	1948	June 19, 1948	15.4	21,200
	Apr. 16, 1927	16.85	24,500		June 22, 1948	15.2	21,200
	June 1, 1927	16.00	22,900		June 29, 1948	14.2	17,400
	Aug. 10, 1927	15.00	20,900				
	Aug. 16, 1927	14.70	20,200	1949	Feb. 17, 1949	15.6	21,900
	Aug. 18, 1927	15.25	21,300				
1928	Apr. 7, 1928	17.00	27,800	1950	Oct. 13, 1949	16.3	23,700
	Apr. 24, 1928	13.85	18,500		Oct. 23, 1949	19.15	40,600
	June 10, 1928	18.20	36,300		Jan. 4, 1950	17.50	29,200
1929	Apr. 10, 1929	13.80	18,100		June 15, 1950	14.95	19,200
	May 7, 1929	15.35	21,400	1951	May 12, 1950	18.66	36,600
1930	Jan. 15, 1930	13.20	16,800		June 10, 1950	14.90	18,900
				1952	May 20, 1951	14.4	17,700
1931	May 20, 1931	7.25	5,380		July 2, 1951	17.95	32,000
1932	June 29, 1932	15.01	20,600	1953	Nov. 13, 1951	12.5	13,700
					Apr. 24, 1953	10.0	9,060
1933	Apr. 17, 1933	14.60	19,900	1954	May 4, 1954	6.0	3,200
	May 15, 1933	19.95	52,200				
1934	Apr. 18, 1934	6.35	3,940	1955	Mar. 21, 1955	13.8	16,300
1935	Mar. 13, 1935	21.62	69,000	1956	May 17, 1956	16.45	26,600
	June 4, 1935	15.00	20,700		May 31, 1956	14.15	18,000
	June 18, 1935	16.55	25,900				
	June 22, 1935	16.50	25,500	1957	Apr. 6, 1957	16.0	24,600
1936	Nov. 12, 1935	8.01	6,400		May 23, 1957	19.3	44,500
					May 27, 1957	15.23	21,100
1937	May 4, 1937	14.42	19,400				

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River near Waynesville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 4, 1957	16.02	24,600	1961	May 3, 1961	14.90	19,500
					May 9, 1961	19.60	43,300
1958	Dec. 19, 1957	18.90	37,600				
	Mar. 25, 1958	18.0	31,900	1962	Mar. 21, 1962	14.72	18,900
	July 9, 1958	14.40	18,100				
	July 19, 1958	19.80	45,100	1963	May 28, 1963	16.43	24,400
1959	May 28, 1959	12.26	12,900	1964	Apr. 7, 1964	13.65	14,900
1960	Dec. 19, 1959	13.25	15,000	1965	Apr. 8, 1965	16.2	23,600
					Sept. 5, 1965	15.71	21,800

GASCONADE RIVER BASIN

6-9290. Coyle Branch at Houston, Mo.

Location.--Lat 37°19'25", long 91°57'12", in NW¼NW¼ sec.8, T.30 N., R.9 W., at double culvert under State Highway 63, at east edge of Houston.

Drainage area.--1.10 sq mi. Slope.--95.9 ft per mi.

Gage.--Recording June 16, 1949, to June 30, 1955; crest-stage gage since Mar. 10, 1959. Altitude of gage is 1,090 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 70 cfs prior to June 30, 1955, and by indirect measurement at 640 cfs. Subsequent to Mar. 10, 1959, defined by current-meter measurements below 20 cfs and by indirect measurements at 372 and 475 cfs.

Bankfull stage.--9 ft.

Remarks.--Rock dike constructed along right bank just upstream from culvert after June 30, 1955. Base for partial-duration series, 85 cfs. Only annual peaks are shown subsequent to 1955.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Oct. 5, 1949	1.84	151	1955	Mar. 20, 1955	1.81	137
	Jan. 3, 1950	1.71	117				
	Apr. 2, 1950	2.46	279	1959	May 27, 1959	2.62	90
	May 10, 1950	1.95	166				
	June 10, 1950	2.40	265	1960	Aug. 18, 1960	4.01	280
1951	Apr. 6, 1951	3.77	646	1961	May 7, 1961	5.00	460
	June 29, 1951	2.61	315				
	June 30, 1951	5.02	1,030	1962	Sept. 3, 1962	2.53	85
1952	Mar. 10, 1952	1.56	87	1963	June 15, 1963	5.00	475
1953	Mar. 3, 1953	1.80	135	1964	Apr. 5, 1964	3.81	250
1954	July 24, 1954	1.22	36	1965	Apr. 2, 1965	4.22	320

GASCONADE RIVER BASIN

6-9300. Big Piney River near Big Piney, Mo.
(Published as Piney Creek prior to 1942)

Location--Lat 37°40'00", long 92°03'05", in NE¼SE¼ sec.8, T.34 N., R.10 W., at Ross Highway bridge, 3 miles east of Big Piney, and 14-3/4 miles upstream from Spring Creek.

Drainage area--560 sq mi, approximately. Slope--5.65 ft per mi.

Gage--Nonrecording prior to July 12, 1961; recording gage thereafter. Datum of gage is 800.99 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 19,000 cfs.

Bankfull stage--9 ft.

Remarks--Base for partial-duration series, 6,800 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 17, 1922	10.00	7,300	1941	Apr. 19, 1941	12.64	9,280
	Apr. 28, 1922	10.26	7,630				
1923	May 16, 1923	10.10	7,410	1942	Apr. 9, 1942	11.00	6,690
1924	Sept. 20, 1924	6.65	3,700	1943	Dec. 27, 1942	20.7	32,700
					May 11, 1943	18.30	24,400
1925	Dec. 20, 1924	12.00	9,650		May 19, 1943	15.80	16,500
					June 24, 1943	12.60	9,280
1926	Oct. 17, 1925	8.40	5,900	1944	Feb. 29, 1944	9.0	4,660
1927	Apr. 1, 1927	15.50	15,600	1945	Feb. 22, 1945	16.81	19,600
	Apr. 14, 1927	14.50	12,700		Feb. 27, 1945	11.60	7,600
	May 25, 1927	10.10	7,420		Mar. 7, 1945	14.60	13,300
	June 2, 1927	12.00	9,600		Mar. 20, 1945	11.80	7,920
	Aug. 15, 1927	14.20	12,300		Mar. 31, 1945	13.00	10,000
	Aug. 18, 1927	12.00	9,600		Apr. 3, 1945	12.25	8,590
					Apr. 15, 1945	19.08	27,000
1928	Dec. 14, 1927	14.20	12,300	1946	June 18, 1945	16.00	17,100
	Apr. 6, 1928	11.10	8,560				
	Apr. 22, 1928	11.10	8,560		Feb. 14, 1946	17.75	21,800
	June 9, 1928	17.00	20,200		Mar. 7, 1946	11.20	6,990
1929	Mar. 16, 1929	10.05	7,300	1947	May 17, 1946	13.10	10,200
	Apr. 10, 1929	10.50	7,880		May 25, 1946	19.53	27,500
	May 6, 1929	10.66	8,100		Aug. 14, 1946	15.40	15,200
	May 13, 1929	10.30	7,640				
1930	Nov. 1, 1929	12.20	9,840	1948	Nov. 10, 1946	19.00	25,700
	Jan. 14, 1930	12.10	9,720		Apr. 26, 1947	16.80	18,800
1931	Nov. 21, 1930	7.93	5,100	1949	Jan. 2, 1948	15.0	14,200
					June 19, 1948	15.08	14,500
1932	Jan. 17, 1932	7.70	4,770		June 28, 1948	14.2	12,400
1933	Dec. 25, 1932	10.50	7,880	1950	Jan. 19, 1949	12.65	9,280
	Apr. 16, 1933	14.60	13,300		Jan. 25, 1949	15.0	14,200
	May 14, 1933	17.50	21,800		Jan. 28, 1949	12.1	8,420
1934	Mar. 28, 1934	4.05	1,240		Feb. 15, 1949	15.6	15,700
	Sept. 16, 1934	4.10	1,240	1951	July 8, 1949	16.70	18,600
1935	Mar. 11, 1935	19.62	28,800		Oct. 21, 1949	11.6	7,600
	June 3, 1935	13.30	11,200		Jan. 4, 1950	18.5	24,000
	June 16, 1935	11.22	8,550		Jan. 14, 1950	15.5	15,400
1936	Nov. 10, 1935	8.91	5,780		Feb. 13, 1950	11.2	6,990
				1952	Apr. 3, 1950	11.5	7,290
1937	Jan. 15, 1937	12.83	10,600		May 11, 1950	18.6	24,300
	Jan. 31, 1937	10.22	7,340		June 10, 1950	12.0	8,250
	May 3, 1937	12.24	9,800				
				1953	Feb. 19, 1951	13.0	10,000
1938	Feb. 18, 1938	14.73	13,000		July 1, 1951	17.00	19,400
	May 8, 1938	12.33	9,920		July 10, 1951	13.0	10,000
	May 24, 1938	14.65	12,900				
1939	Nov. 8, 1938	11.15	8,550	1954	Mar. 11, 1952	12.4	8,930
	Feb. 20, 1939	11.53	8,920		Apr. 13, 1952	12.5	9,100
	Apr. 17, 1939	12.40	10,000	1955	Mar. 4, 1953	11.2	6,990
1940	Apr. 12, 1940	10.10	7,220		May 29, 1954	6.42	2,680
				1956	Feb. 20, 1955	11.6	7,600
1941	Apr. 17, 1941	13.74	11,300		Mar. 21, 1955	15.58	15,700
				1956	May 16, 1956	19.8	28,600
					May 31, 1956	14.7	14,100

GASCONADE RIVER BASIN

Peak stages and discharges of Big Piney River near Big Piney, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 4, 1957	13.6	11,600	1961	Mar. 7, 1961	10.70	6,880
	Apr. 27, 1957	12.6	9,670		May 8, 1961	18.10	22,800
	May 23, 1957	16.3	17,900				
	June 2, 1957	12.1	8,860	1962	Mar. 21, 1962	10.83	7,000
1958	Dec. 18, 1957	16.38	18,200	1963	Oct. 14, 1962	11.24	7,540
	Mar. 24, 1958	15.60	16,200		May 18, 1963	13.25	10,700
	July 18, 1958	17.00	19,700		May 27, 1963	14.43	13,400
	Sept. 17, 1958	10.70	6,880				
1959	May 28, 1959	8.80	4,910	1964	Apr. 6, 1964	16.30	17,900
1960	Dec. 28, 1959	10.05	6,050	1965	Apr. 6, 1965	16.24	17,600
					Sept. 5, 1965	13.92	12,200

GASCONADE RIVER BASIN

6-9307.5. Prewett Hollow near Dixon, Mo.

Location.--Lat 37°57'25", long 92°04'50", in SW¼SE¼ sec.1, T.37 N., R.11 W., on right bank just upstream from culvert on county road D, about half a mile east of junction of State Highway 28 and county road D, and about 2 miles southeast of Dixon.

Drainage area.--0.46 sq mi. Slope.--87.5 ft per mi.

Gage.--Crest-stage gage; supplemental stage-rainfall recorder installed Apr. 3, 1964.

Stage-discharge relation.--Defined at 148 and 421 cfs by indirect measurements. Defined below 25 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Oct. 4, 1959	10.32	110				
1961	May 5, 1961	14.33	421				
1962	Mar. 20, 1962	10.62	140				
1963	July 28, 1963	8.89	28				
1964	July 1, 1964	9.92	85				
1965	-	(a)	(b)				

a No peak registered.

b Less than 17 cfs.

GASCONADE RIVER BASIN

6-9310. Beaver Creek near Rolla, Mo.

Location--Lat 37°52'45", long 91°47'43", in SE¼SW¼ sec.34, T.37 N., R.8 W., 30 ft downstream from bridge on U. S. Highway 63, 4½ miles upstream from mouth, and 5 miles south of Rolla.

Drainage area--14.0 sq mi. Slope--39.5 ft per mi.

Gage--Recording Aug. 12, 1948, to Aug. 18, 1958; crest-stage gage subsequent to Jan. 12, 1960. Datum of gage is 805.31 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 2,100 cfs and extended by logarithmic plotting.

Bankfull stage--6 ft.

Remarks--Base for partial-duration series, 1,500 cfs. Only annual peaks shown subsequent to 1955.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Feb. 14, 1949	3.85	1,860	1955	Mar. 20, 1955	3.92	1,890
	Sept. 12, 1949	4.40	2,050				
1950	Oct. 11, 1949	5.45	3,080	1956	May 30, 1956	5.3	3,620
	Oct. 21, 1949	4.44	2,100	1957	May 21, 1957	4.2	2,220
	Jan. 3, 1950	5.40	3,560				
	Jan. 13, 1950	4.17	2,180	1958	Dec. 17, 1957	3.0	980
	May 10, 1950	3.50	1,500	1960	Dec. 17, 1959	4.46	2,500
	May 19, 1950	3.98	2,020				
	May 29, 1950	3.61	1,600				
	June 9, 1950	5.61	3,800	1961	May 6, 1961	5.13	3,400
1951	June 30, 1951	4.47	2,280	1962	Sept. 24, 1962	4.29	2,330
1952	Mar. 10, 1952	3.43	1,280	1963	May 25, 1963	3.24	1,200
1953	Apr. 23, 1953	4.06	1,870	1964	Apr. 5, 1964	4.64	2,750
1954	June 9, 1954	2.93	924	1965	Sept. 14, 1965	3.47	1,400

GASCONADE RIVER BASIN

6-9315. Little Beaver Creek near Rolla, Mo.

Location--Lat 37°56'06", long 91°50'11", in NW1/4 sec.17, T.37 N., R.8 W., on right bank 1,700 ft downstream from new U. S. Highway 66, and 3 miles west of Rolla.

Drainage area--6.41 sq mi. Slope--65.6 ft per mi.

Gage--Recording. Altitude of gage is 790 ft (from topographic map).

Stage-discharge relation--Defined by current-meter measurements below 1,400 cfs and by indirect measurement at 5,000 cfs, and extended by logarithmic plotting.

Bankfull stage--2.5 ft.

Historical data--Flood of June 8, 1945, reached a stage of about 7.5 ft from information furnished by local residents. Maximum stage known since 1881 or 1882, that of July 17, 1958.

Remarks--Base for partial-duration series, 1,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 20, 1948	4.08	1,020	1957	May 17, 1957	5.70	1,820
	June 22, 1948	4.08	1,020		May 21, 1957	5.80	1,940
1949	June 2, 1949	4.41	1,230		May 21, 1957	7.57	5,040
	July 22, 1949	4.37	1,200	1958	June 29, 1957	5.25	1,340
1950	Oct. 4, 1949	4.35	1,240		June 10, 1958	7.20	4,240
	Oct. 11, 1949	6.05	3,130		July 16, 1958	5.78	1,920
	Oct. 20, 1949	4.27	1,160		July 17, 1958	8.57	7,420
	Jan. 3, 1950	4.77	1,570	1959	Feb. 9, 1959	3.93	524
	Jan. 13, 1950	4.55	1,400		May 6, 1960	4.81	1,060
	Apr. 4, 1950	4.33	1,240	1960	May 6, 1960	4.81	1,060
	May 19, 1950	4.79	1,610		May 5, 1961	5.02	1,210
1951	June 9, 1950	6.66	4,180	1961	May 5, 1961	5.02	1,210
	June 30, 1951	5.32	2,110	1962	June 9, 1962	3.94	529
1952	Aug. 9, 1951	5.15	1,950		June 9, 1962	3.94	529
	Oct. 22, 1951	3.00	456	1963	May 25, 1963	6.03	2,240
1953	Apr. 23, 1953	5.3	2,110		May 25, 1963	6.03	2,240
	June 9, 1954	4.30	740	1964	Apr. 5, 1964	5.19	1,340
1954	July 7, 1955	4.60	950		Apr. 5, 1964	5.19	1,340
	May 30, 1956	5.17	1,320	1965	June 3, 1965	5.19	1,340
1955	May 30, 1956	5.17	1,320		Sept. 4, 1965	4.94	1,160
	May 30, 1956	5.17	1,320		Sept. 14, 1965	5.37	1,480
1956	May 30, 1956	5.17	1,320				

GASCONADE RIVER BASIN

6-9320. Little Piney Creek at Newburg, Mo.

Location.--Lat 37°54'40", long 91°54'10", in SE¼ sec.22, T.37 N., R.9 W., at bridge on County Highways P and T at Newburg, 2 miles upstream from Mill Creek.

Drainage area.--200 sq mi, approximately. Slope.--14.0 ft per mi.

Gage.--Nonrecording. At datum 3.00 ft higher prior to Oct. 1, 1951. Datum of gage is 693.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs and by indirect measurements at 26,000 and 32,500 cfs.

Bankfull stage.--10 ft.

Remarks.--Gage heights are adjusted to present datum. Base for partial-duration series, 4,900 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	16.7	a30,000	1949	Feb. 15, 1949	9.00	7,030
1929	May 6, 1929	10.22	8,860	1950	Oct. 6, 1949	9.20	7,390
1930	Feb. 25, 1930	9.26	6,700		Oct. 11, 1949	11.60	13,100
1931	May 19, 1931	6.14	1,110		Oct. 21, 1949	11.00	11,300
1932	Dec. 31, 1931	6.38	1,390		Jan. 3, 1950	12.00	14,400
1933	May 13, 1933	10.58	7,840		Jan. 13, 1950	8.60	6,350
1934	Sept. 13, 1934	9.98	6,700		May 10, 1950	8.00	5,330
1935	Mar. 11, 1935	11.54	10,100		May 19, 1950	8.00	5,330
	June 16, 1935	9.98	6,520		June 10, 1950	13.60	20,300
	June 21, 1935	12.40	13,100	1951	June 30, 1951	12.00	14,400
	June 26, 1935	16.26	28,000		July 10, 1951	10.00	8,950
1936	June 7, 1936	9.12	4,660		July 13, 1951	8.00	5,330
1937	July 19, 1937	14.35	20,500	1952	Mar. 11, 1952	6.30	2,680
1938	May 23, 1938	10.04	6,050	1953	Apr. 23, 1953	5.50	1,730
1939	Apr. 16, 1939	13.00	15,200	1954	June 9, 1954	6.0	2,260
1940	Apr. 17, 1940	7.05	2,540	1955	Mar. 20, 1955	7.3	4,420
1941	Apr. 19, 1941	12.50	15,000	1956	May 31, 1956	9.80	7,000
1942	June 25, 1942	8.81	4,820	1957	May 21, 1957	10.00	6,900
1943	Oct. 20, 1942	9.50	6,070		May 23, 1957	11.91	11,100
	Dec. 27, 1942	11.30	10,800	1958	Dec. 17, 1957	8.88	5,280
	May 18, 1943	9.40	5,870		Mar. 23, 1958	9.3	5,790
1944	Feb. 28, 1944	5.94	1,320		June 10, 1958	9.6	6,230
1945	Apr. 2, 1945	11.50	11,500		July 16, 1958	11.0	9,000
	Apr. 14, 1945	13.20	19,200	1959	July 17, 1958	12.8	13,500
	June 8, 1945	15.00	26,000		May 17, 1959	8.9	5,280
1946	Aug. 14, 1946	16.20	32,500	1960	May 6, 1960	8.10	4,380
1947	Apr. 24, 1947	11.23	11,800	1961	May 6, 1961	9.84	6,550
1948	Oct. 31, 1947	5.82	1,660		May 8, 1961	9.0	5,400
				1962	Mar. 20, 1962	7.70	3,970
				1963	May 26, 1963	7.80	2,420
				1964	Apr. 5, 1964	9.31	5,780
				1965	Sept. 5, 1965	7.95	4,160

a Annual peak only.

GASCONADE RIVER BASIN

6-9335. Gasconade River at Jerome, Mo.
(Published as "at Arlington" prior to 1923)

Location.--Lat 37°55'35", long 91°58'40", in SE¼ sec.13, T.37 N., R.10 W., at Jerome, 0.5 mile downstream from Little Piney Creek.

Drainage area.--2,840 sq mi, approximately. Slope.--3.01 ft per mi.

Gage.--Nonrecording Apr. 11, 1903, to July 21, 1906, and Jan. 3, 1923, to Jan. 17, 1939; recording gage thereafter. At site 4,000 ft downstream from present gage at different datum prior to July 26, 1904. At site 2,600 ft upstream from and at datum about 0.85 ft higher than present datum, July 26, 1904, to July 21, 1906. At site 400 ft downstream from and at datum 0.14 ft lower than present datum, Jan. 3, 1923, to Sept. 29, 1928. Datum of gage is 657.64 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Historical data.--Maximum stage known, about 29.0 ft Jan. 6, 1897 (discharge, 120,000 cfs). A stage of 28.6 ft was reached Aug. 20, 1915 (discharge, 114,000 cfs).

Remarks.--Base for partial-duration series, 16,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897	Jan. 6, 1897	a29.0	b120,000	1935	Mar. 13, 1935	25.80	76,800
1904	Jan. 23, 1904	11.5	16,400	June 4, 1935	15.70	28,400	
	Mar. 26, 1904	16.5	29,900	June 21, 1935	20.60	46,900	
	Apr. 26, 1904	18.0	33,900	June 26, 1935	23.50	62,600	
	June 26, 1904	14.5	24,500	1936	Nov. 11, 1935	7.30	8,480
	1905	Mar. 9, 1905	13.5	24,200	1937	Jan. 16, 1937	13.96
1905	July 23, 1905	20.3	45,000	Feb. 2, 1937	11.16	17,000	
	July 30, 1905	19.1	41,100	May 3, 1937	15.10	27,000	
	Sept. 19, 1905	16.5	32,900	1938	Feb. 19, 1938	18.70	37,900
	1915	Aug. 22, 1915	a28.6	b114,000	May 10, 1938	12.65	19,900
1923	Mar. 17, 1923	10.30	15,500	May 24, 1938	16.2	29,300	
1924	May 29, 1924	15.80	30,400	1939	Apr. 16, 1939	13.67	22,600
	Aug. 12, 1924	11.85	19,400	Apr. 18, 1939	16.19	29,300	
1925	Dec. 20, 1924	18.20	38,600	1940	Mar. 13, 1940	10.44	14,500
	Sept. 29, 1925	12.75	22,000	1941	Apr. 21, 1941	22.64	54,600
1926	Nov. 8, 1925	9.80	13,900	1942	Nov. 2, 1941	13.35	20,700
1927	Mar. 22, 1927	12.55	21,300	Apr. 11, 1942	13.03	20,000	
	Apr. 2, 1927	21.06	45,500	June 13, 1942	12.84	19,500	
	Apr. 15, 1927	19.0	39,300	June 20, 1942	17.4	31,600	
	Apr. 21, 1927	15.26	28,700	1943	Dec. 28, 1942	25.63	74,000
	May 26, 1927	15.45	29,000	May 12, 1943	20.57	43,700	
	June 3, 1927	19.85	41,600	May 21, 1943	24.7	67,800	
	June 22, 1927	11.75	19,200	June 23, 1943	13.9	22,200	
	Aug. 11, 1927	13.6	24,000	June 25, 1943	11.76	17,200	
	Aug. 16, 1927	17.9	36,100	1944	Mar. 1, 1944	9.57	12,500
	Aug. 19, 1927	16.2	31,300	1945	Feb. 23, 1945	15.91	27,400
1928	Nov. 16, 1927	11.4	18,100	Mar. 7, 1945	17.20	31,300	
	Dec. 15, 1927	13.89	24,800	Mar. 21, 1945	14.35	23,500	
	Apr. 7, 1928	20.0	42,200	Apr. 3, 1945	17.77	33,300	
	Apr. 23, 1928	15.7	29,900	Apr. 15, 1945	27.7	101,000	
	May 24, 1928	11.59	18,600	June 8, 1945	20.01	41,300	
	June 10, 1928	23.25	61,100	June 19, 1945	14.67	24,200	
	June 20, 1928	12.65	21,300	1946	Feb. 15, 1946	18.06	34,300
1929	Mar. 16, 1929	11.00	17,000	May 26, 1946	17.75	33,300	
	Apr. 11, 1929	14.20	25,700	Aug. 14, 1946	26.55	87,500	
	May 7, 1929	16.60	32,700	1947	Nov. 11, 1946	16.9	30,400
	May 24, 1929	13.45	23,500	Apr. 27, 1947	23.53	60,000	
1930	Jan. 15, 1930	15.52	29,300	1948	June 20, 1948	16.50	29,200
1931	May 20, 1931	6.80	7,500	June 29, 1948	12.95	20,000	
1932	Jan. 24, 1932	8.50	11,100	1949	Jan. 26, 1949	13.0	20,000
1933	Apr. 17, 1933	16.80	31,700	Jan. 29, 1949	13.4	21,000	
	May 16, 1933	23.40	62,600	Feb. 16, 1949	17.3	31,700	
1934	Sept. 13, 1934	7.28	8,530	June 3, 1949	13.6	21,500	
				June 9, 1949	13.6	21,500	

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River at Jerome, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 9, 1949	13.9	22,200	1955	Feb. 21, 1955	11.35	16,300
1950	Oct. 6, 1949	13.4	21,000		Mar. 22, 1955	15.01	25,000
	Oct. 12, 1949	17.3	31,700	1956	May 16, 1956	16.35	28,900
	Oct. 24, 1949	18.88	37,100		June 1, 1956	16.94	30,400
	Jan. 5, 1950	21.03	45,600	1957	Feb. 27, 1957	12.22	18,100
	Jan. 15, 1950	16.73	29,800		Apr. 5, 1957	15.40	26,100
	May 13, 1950	21.6	48,700		May 24, 1957	23.12	57,400
	May 21, 1950	12.24	18,100		June 5, 1957	14.76	24,500
	June 10, 1950	19.14	37,900				
1951	Feb. 21, 1951	14.25	23,000	1958	Dec. 20, 1957	17.55	32,600
	Mar. 13, 1951	11.78	17,200		Mar. 25, 1958	19.65	39,700
	May 21, 1951	12.39	18,600		July 19, 1958	21.26	47,100
	June 29, 1951	11.55	16,800	1959	May 29, 1959	11.03	15,400
	July 2, 1951	20.08	41,700				
	July 6, 1951	12.08	17,900	1960	Dec. 20, 1959	10.65	14,600
	July 11, 1951	14.90	24,700				
	July 14, 1951	13.70	21,700				
1952	Nov. 14, 1951	13.08	20,300	1961	May 3, 1961	13.15	20,600
	Nov. 17, 1951	12.42	18,600		May 10, 1961	23.90	62,800
	Feb. 4, 1952	11.80	17,200	1962	Mar. 22, 1962	14.65	24,500
	Mar. 12, 1952	12.45	18,600				
	Apr. 14, 1952	13.00	20,000	1963	May 27, 1963	15.60	27,500
1953	Apr. 24, 1953	9.50	12,300	1964	Apr. 7, 1964	14.78	25,100
1954	May 5, 1954	4.87	4,320	1965	Apr. 9, 1965	14.96	25,700
					Sept. 6, 1965	15.82	28,100

a Present datum.

b Annual peak only.

GASCONADE RIVER BASIN

6-9337. Penzer Hollow near Rolla, Mo.

Location.--Lat 38°00'30", long 91°49'55", in NE¼NW¼ sec.20, T.38 N., R.8 W., on right bank just upstream from culvert under Phelps County road E, 5 miles north of Rolla.

Drainage area.--0.27 sq mi. Slope.--190 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 15.1 cfs and by indirect measurements at 45.4, 139, and 276 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 30, 1956	15.02	45				
1957	May 21, 1957	18.52	276				
1958	July 17, 1958	17.10	161				
1959	-	(a)	(b)				
1960	May 6, 1960	15.75	80				
1961	May 6, 1961	16.18	102				
1962	Mar. 20, 1962	15.66	75				
1963	May 25, 1963	16.95	150				
1964	Apr. 5, 1964	15.80	82				
1965	June 4, 1965	16.80	140				

a Stage did not reach gage during year.

b Less than 30 cfs.

GASCONADE RIVER BASIN

6-9340. Gasconade River near Rich Fountain, Mo.

Location.--Lat 38°23'20", long 91°49'15", in SE¼ sec.16, T.42 N., R.8 W., at bridge on State Highway 89, 800 ft upstream from Swan Creek, and 4 miles east of Rich Fountain.

Drainage area.--3,180 sq mi, approximately. Slope.--2.68 ft per mi.

Gage.--Nonrecording prior to Mar. 10, 1934; recording gage thereafter. Datum of gage is 553.70 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 18,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 2, 1922	16.70	27,300	1940	Mar. 13, 1940	11.70	14,000
	Apr. 19, 1922	13.70	20,700				
	Apr. 29, 1922	14.40	22,300	1941	Apr. 22, 1941	22.80	51,000
1923	Mar. 17, 1923	11.20	15,200	1942	Oct. 5, 1941	14.40	19,900
1924	May 30, 1924	17.20	27,700		Nov. 3, 1941	14.60	20,300
					Apr. 12, 1942	14.50	20,100
1925	Dec. 21, 1924	18.00	29,600		June 14, 1942	14.45	19,900
	Sept. 30, 1925	13.22	18,900		June 21, 1942	19.10	32,700
1926	Nov. 9, 1925	10.48	13,500	1943	Dec. 29, 1942	25.60	74,500
1927	Mar. 23, 1927	14.10	20,900		May 13, 1943	20.60	38,500
	Apr. 3, 1927	21.63	41,000		May 22, 1943	25.30	71,700
	Apr. 9, 1927	13.14	18,700		June 8, 1943	14.70	20,600
	Apr. 17, 1927	20.38	37,400		June 23, 1943	14.80	20,800
	Apr. 21, 1927	15.48	24,000	1944	Mar. 2, 1944	10.69	12,600
	May 26, 1927	16.13	25,300	1945	Feb. 24, 1945	16.04	23,800
	June 3, 1927	20.78	38,600		Mar. 6, 1945	17.31	27,300
	Aug. 12, 1927	15.40	23,800		Mar. 9, 1945	18.34	30,200
	Aug. 17, 1927	17.75	29,800		Mar. 22, 1945	15.76	23,300
	Aug. 20, 1927	16.70	26,800		Apr. 3, 1945	19.88	35,600
1928	Dec. 16, 1927	14.55	21,700		Apr. 16, 1945	29.13	96,400
	Apr. 8, 1928	19.95	36,000		June 9, 1945	20.58	38,500
	Apr. 25, 1928	15.90	24,800	1946	Feb. 16, 1946	18.21	29,900
	May 25, 1928	12.86	18,200		May 27, 1946	17.18	27,000
	June 11, 1928	22.83	51,000		Aug. 16, 1946	25.18	67,400
	June 20, 1928	14.30	21,100	1947	Nov. 12, 1946	16.93	26,200
1929	Apr. 12, 1929	15.65	24,000		Apr. 28, 1947	24.10	59,700
	May 9, 1929	17.15	27,900				
	May 15, 1929	14.70	21,900	1948	June 23, 1948	16.64	25,400
	May 18, 1929	13.40	19,200		June 30, 1948	14.23	19,500
1930	Jan. 16, 1930	16.30	25,700	1949	Jan. 27, 1949	14.95	21,300
1931	May 20, 1931	9.60	11,900		Jan. 30, 1949	14.6	20,400
1932	Jan. 25, 1932	9.55	11,900		Feb. 18, 1949	17.4	27,600
					June 4, 1949	15.6	22,800
					June 10, 1949	14.16	19,500
1933	Apr. 18, 1933	17.21	27,900		July 10, 1949	14.5	20,200
	May 17, 1933	23.05	60,600	1950	Oct. 7, 1949	13.5	18,000
	May 24, 1933	13.80	20,000		Oct. 13, 1949	18.6	31,100
1934	Sept. 12, 1934	12.67	17,700		Oct. 25, 1949	19.5	35,000
					Jan. 7, 1950	20.9	40,400
					Jan. 16, 1950	17.7	29,100
1935	Mar. 14, 1935	26.85	86,000		May 14, 1950	22.09	46,400
	June 5, 1935	16.85	26,900		May 20, 1950	14.8	21,400
	June 22, 1935	21.74	43,800		June 11, 1950	19.3	34,300
	June 27, 1935	21.38	42,200	1951	Feb. 22, 1951	15.30	22,600
1936	Nov. 12, 1935	7.92	7,890		May 22, 1951	15.0	21,900
1937	Jan. 17, 1937	14.86	22,400		July 3, 1951	20.50	38,700
	May 4, 1937	16.61	26,400		July 7, 1951	13.48	18,600
	June 9, 1937	18.17	30,600		July 12, 1951	16.85	26,600
1938	Feb. 20, 1938	19.00	32,400	1952	Nov. 14, 1951	14.28	20,300
	May 11, 1938	13.73	18,300		Mar. 13, 1952	13.80	19,500
	May 25, 1938	16.76	25,900		Apr. 15, 1952	13.80	19,500
	June 11, 1938	16.13	24,100	1953	Apr. 24, 1953	10.59	13,800
1939	Apr. 19, 1939	17.38	27,300	1954	May 22, 1954	5.94	5,660

GASCONADE RIVER BASIN

Peak stages and discharges of Gasconade River near Rich Fountain, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 23, 1955	15.73	24,800	1959	May 30, 1959	11.83	16,100
1956	May 18, 1956	15.50	24,300	1960	Dec. 21, 1959	11.70	15,900
	June 2, 1956	16.75	27,700				
1957	Feb. 28, 1957	13.5	18,600	1961	May 4, 1961	14.01	20,800
	Apr. 7, 1957	16.48	25,800		May 11, 1961	24.2	60,400
	May 18, 1957	16.47	25,800	1962	Mar. 23, 1962	15.86	25,300
	May 25, 1957	23.7	56,900				
	June 6, 1957	15.58	23,400	1963	May 30, 1963	17.5	27,800
1958	Dec. 21, 1957	17.30	28,000	1964	Apr. 8, 1964	15.2	23,600
	Mar. 26, 1958	20.60	38,500				
	July 20, 1958	21.70	43,900	1965	-	-	27,000

MISSOURI RIVER MAIN STEM

6-9345. Missouri River at Hermann, Mo.

Location---Lat 38°42'36", long 91°26'21", SW¼ sec.25, T.46 N., R.5 W., at bridge on State Highway 19 at Hermann, and at mile 97.9.Drainage area---528,200 sq mi.Gage---Nonrecording Aug. 1, 1928, to Mar. 27, 1932, and June 13, 1945, to Apr. 2, 1946. Recording gage Mar. 28, 1932, to June 12, 1945, and since Apr. 3, 1946. Datum of gage is 481.56 ft above mean sea level, datum of 1929.Stage-discharge relation---Defined by current-meter measurements.Bankfull stage---21 ft.Remarks---Drainage basin above station contains many reservoirs with total usable capacity in excess of 28,875,000 acre-ft. Only annual peaks are shown.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1844	June	1844	35.5	a892,000	1947	June 29,	1947	31.20	487,000
1903	June	7, 1903	29.5	a676,000	1948	June 25,	1948	25.2	333,000
1929	June	8, 1929	24.6	407,000	1949	June 5,	1949	22.8	239,000
1930	Feb.	7, 1930	b16.8	-	1950	July 22,	1950	23.10	-
	June	19, 1930	15.0	164,000		Aug. 17,	1950	-	265,000
1931	May	20, 1931	13.5	123,000	1951	July 19,	1951	33.33	618,000
1932	Nov.	29, 1931	20.9	269,000	1952	Apr. 28,	1952	27.10	368,000
1933	May	14, 1933	19.4	183,000	1953	May 9,	1953	18.70	177,000
1934	Mar.	10, 1934	11.28	85,000	1954	June 5,	1954	16.82	145,000
1935	June	7, 1935	29.15	473,000	1955	Feb. 21,	1955	19.35	186,000
1936	Feb.	27, 1936	15.85	145,000	1956	Oct. 7,	1955	17.45	144,000
1937	June	10, 1937	19.85	194,000	1957	May 26,	1957	21.50	196,000
1938	May	25, 1938	21.80	231,000	1958	July 23,	1958	29.15	339,000
1939	Apr.	18, 1939	22.75	247,000	1959	June 3,	1959	21.30	190,000
1940	June	12, 1940	14.03	111,000	1960	Apr. 7,	1960	28.44	330,000
1941	Apr.	20, 1941	23.66	256,000	1961	May 10,	1961	30.6	405,000
1942	June	28, 1942	29.62	435,000	1962	Mar. 23,	1962	25.30	278,000
1943	May	21, 1943	31.20	550,000	1963	Mar. 6,	1963	17.10	139,000
1944	Apr.	28, 1944	30.90	577,000	1964	June 26,	1964	21.10	202,000
1945	Apr.	20, 1945	27.74	398,000	1965	Sept. 25,	1965	27.40	306,000
1946	Aug.	15, 1946	20.3	209,000					

a Computed by Corps of Engineers.

b Backwater from ice.

LOUTRE RIVER BASIN

6-9350. Rumbo Branch at Danville, Mo.

Location--Lat 38°55'00", long 91°32'03", in SW¼NE¼ sec.24, T.48 N., R.6 W., 30 ft upstream from center line of State Highway 29, 20 ft left of center line of culvert, and half a mile north of Danville.

Drainage area--1.40 sq mi. Slope--44.9 ft per mi.

Gage--Recording prior to Sept. 9, 1959; crest-stage gage thereafter. Datum of gage is 747.27 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 35 cfs, by indirect measurement at 220 cfs, and by a calculated estimate at 350 cfs.

Remarks--Base for partial-duration series, 150 cfs. Only annual peaks shown subsequent to 1959.

Peak stages and discharges									
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date		Gage height (feet)	Discharge (cfs)
1954	June	8, 1954	3.33	101	1958	July	19, 1958	4.09	183
1955	Apr.	4, 1955	4.43	222		July	19, 1958	4.44	222
	Apr.	12, 1955	4.09	183		Sept.	2, 1958	5.98	398
	July	6, 1955	6.34	434	1959	Feb.	9, 1959	4.34	209
1956						May	18, 1959	3.92	161
	May	18, 1956	4.16	188					
	May	29, 1956	3.95	166	1960	Mar.	27, 1960	4.46	223
	May	31, 1956	4.02	172					
	July	2, 1956	4.47	222	1961	May	5, 1961	4.44	220
1957	July	16, 1956	5.62	350					
					1962	Mar.	20, 1962	4.26	201
	June	29, 1957	5.72	362					
1958					1963	May	17, 1963	4.02	174
	Apr.	5, 1958	4.17	188					
	June	10, 1958	4.04	178	1964	Apr.	5, 1964	3.62	130
	June	12, 1958	3.94	166					
	June	15, 1958	4.86	266	1965	Apr.	5, 1965	3.68	137
	July	4, 1958	4.45	222					

LOUTRE RIVER BASIN

6-9355. Loutre River at Mineola, Mo.

Location.--Lat 38°53'20", long 91°34'30", in SE¼NW¼ sec.34, T.48 N., R.6 W., at downstream side of left pier of bridge in Mineola, 0.2 mile upstream from Sallee Branch, and 1½ miles downstream from new U. S. Highway 40.

Drainage area.--202 sq mi. Slope.--10.4 ft per mi.

Gage.--Nonrecording prior to Aug. 29, 1951; recording gage thereafter. Datum of gage is 539.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs.

Bankfull stage.--17 ft.

Historical data.--Flood of June 20, 1928, reached a stage of about 28.9 ft and flood in October 1941, reached a stage of 27.8 ft, from information by local residents.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 21, 1948	17.6	8,160	1956	July 16, 1956	17.85	8,420
	Mar. 23, 1948	16.6	6,950		July 19, 1956	16.85	7,190
	July 4, 1948	15.1	5,190	1957	Mar. 25, 1957	15.81	5,990
	July 26, 1948	17.2	7,670		Apr. 28, 1957	15.40	5,510
1949	Jan. 23, 1949	17.33	7,820		June 30, 1957	20.88	12,900
	Mar. 26, 1949	15.43	5,800		June 15, 1958	17.27	7,790
	June 2, 1949	17.89	8,550	1958	July 20, 1958	18.98	10,000
	Sept. 13, 1949	19.98	11,500		July 31, 1958	18.60	9,470
1950	Oct. 21, 1949	18.50	9,330		Sept. 2, 1958	19.55	10,900
	Dec. 21, 1949	15.5	5,800		Sept. 17, 1958	17.45	7,910
	Jan. 3, 1950	14.8	5,100	1959	Feb. 10, 1959	19.60	10,900
	Jan. 13, 1950	17.1	7,580		Mar. 9, 1959	16.28	6,590
	Mar. 11, 1950	15.0	5,280		May 17, 1959	14.88	5,000
	June 3, 1950	17.7	8,300	1960	Oct. 4, 1959	15.25	5,290
1951	Feb. 20, 1951	18.0	8,680		Oct. 11, 1959	18.99	10,000
	Mar. 17, 1951	19.6	10,900		Mar. 28, 1960	17.70	8,290
	Sept. 22, 1951	14.7	5,010	1961	May 6, 1961	18.35	9,200
1952	Mar. 18, 1952	14.78	5,100		May 8, 1961	17.60	8,160
	Apr. 12, 1952	14.66	5,010	1962	Mar. 21, 1962	19.90	11,400
1953	May 5, 1953	14.45	4,770	1963	May 16, 1963	8.95	1,850
1954	June 8, 1954	8.65	1,750	1964	May 28, 1964	13.90	4,420
1955	Apr. 5, 1955	14.04	4,220	1965	Apr. 6, 1965	15.27	5,580
1956	Oct. 5, 1955	16.40	6,710		Sept. 16, 1965	15.32	5,580
	Oct. 6, 1955	16.04	6,230		Sept. 22, 1965	18.45	9,200
	July 3, 1956	15.74	5,870				
	July 4, 1956	16.28	6,590				

LITTLE BERGER CREEK BASIN

6-9357. Little Berger Creek tributary near Hermann, Mo.

Location--Lat 38°40'10", long 91°22'25", in NW¼NE¼ sec.9, T.45 N., R.4 W., on right bank just upstream from culvert under State Highway 100, 4 miles southeast of Hermann.

Drainage area--0.25 sq mi. Slope--178 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by indirect measurements at 194, 302, and 576 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	
1955	Apr.	11, 1955	16.95	194			
1956	Feb.	24, 1956	14.70	a85			
1957	June	29, 1957	22.31	576			
1958	Aug.	9, 1958	18.15	300			
1959	June	15, 1959	18.82	340			
1960	-	-	(b)	(c)			
1961	May	7, 1961	14.68	a85			
1962	June	7, 1962	13.84	a47			
1963	Aug.	19, 1963	13.14	a23			
1964	-	-	(b)	(c)			
1965	Apr.	15, 1965	14.33	67			

a Revised.

b Stage did not reach gage during year.

c Less than 50 cfs.

BONHOMME CREEK BASIN

6-9358. Shotwell Creek near Ellisville, Mo.

Location--Lat 38°37'05", long 90°35'00", in NW¼NW¼ sec.28, T.45 N., R.4 E., on left bank just upstream from culvert on State Highway 340, 1.8 miles north of Jct. 340 and 100, and 1 mile north of Jct. 340 and County Route HH.

Drainage area--0.81 sq mi. Slope--79.5 ft per mi.

Gage--Crest-stage gage; supplemental recording gage installed July 10, 1962.

Stage-discharge relation--Defined at 346, 620, and 718 cfs by indirect measurements. Defined below 42 cfs by current-meter measurements.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	
1960	June	29, 1960	18.94	620			
1961	May	7, 1961	20.69	718			
1962	Apr.	30, 1962	19.11	640			
1963	July	5, 1963	18.41	550			
1964	July	11, 1964	19.80	670			
1965	Nov.	27, 1964	14.95	185			

COLDWATER CREEK BASIN

6-9365. Coldwater Creek near St. Louis, Mo.

Location--Lat 38°48'50", long 90°13'50", in sec.16, T.47 N., R.7 E., on right wingwall on downstream side of U. S. Highway 67 bridge, 1.7 miles upstream from Missouri River, 1.8 miles southeast of Lewis Bridge, 3.5 miles south of West Alton, and 6 miles north of St. Louis city limits.

Drainage area--43.6 sq mi. Slope--7.70 ft per mi.

Gage--Recording gage installed Sept. 22, 1959, removed July 20, 1961; reinstalled July 13, 1962.

Stage-discharge relation--Defined by current-meter measurements.

Remarks--Base for partial-duration series, 3,000 cfs.

				Peak stages and discharges				
Water year	Date		Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	May	24, 1960	12.43	3,550	1961	June 30, 1961	12.93	3,850
	June	29, 1960	17.13	6,170				
	July	1, 1960	12.03	3,350				
1962	Record incomplete							
1963	May	16, 1963	9.88	2,380	1964	July 11, 1964	11.57	3,200
1965	July	7, 1965	10.81	2,800				

MISSISSIPPI RIVER MAIN STEM

7-0100. Mississippi River at St. Louis, Mo.

Location.--Lat 38°37'44", long 90°10'47", on downstream side of center pier of Eads Bridge at St. Louis, 15 miles downstream from Missouri River, 19.2 miles upstream from Meramec River, and at mile 180.0 above Ohio River.

Drainage area.--701,000 sq mi, approximately.

Gage.--Nonrecording Corps of Engineers gages prior to May 5, 1934; recording thereafter. Prior to 1934, at site 0.4 mile downstream at present datum. Datum of gage is 379.94 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, defined by frequent current-meter measurements.

Bankfull stage.--30 ft.

Historical data.--Flood in April 1785 may have reached a stage of 42.0 ft.

Remarks.--Records prior to January 1928 furnished by Corps of Engineers; January 1928 to March 1933 furnished by Mississippi River Commission. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin and by many reservoirs and diversions for irrigation in Missouri River basin. Discharges prior to the 1933 water year are maximum daily discharges. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 27, 1844	41.32	a1,300,000	1911	Feb. 23, 1911	19.90	283,000
1861	May 15, 1861	25.47	466,000	1912	Apr. 5, 6, 1912	b30.80	640,800
1862	Apr. 26, 1862	31.45	712,200	1913	Apr. 16, 17, 1913	27.20	487,000
1863	Mar. 4, 9, 1863	18.02	252,000	1914	June 21, 1914	20.40	293,800
1864	May 14, 1864	20.33	309,500	1915	June 24, 1915	31.60	678,200
1865	July 28, 1865	26.81	512,800	1916	Jan. 31, Feb. 1, 1916	31.40	676,100
1866	Apr. 25, 1866	26.77	512,800	1917	June 14, 1917	32.90	743,400
1867	May 1, 1867	28.21	568,400	1918	June 12, 1918	20.80	324,100
1868	May 14, 15, 1868	24.19	420,800	1919	May 11, 1919	26.90	514,700
1869	July 24, 1869	29.31	615,200	1920	Apr. 24, May 22, 1920	28.0	554,000
1870	Apr. 16, 1870	26.21	491,200	1921	May 14, 1921	23.0	397,000
1871	Mar. 17, 1871	21.82	347,800	1922	Apr. 20, 1922	33.95	785,900
1872	June 12, 14, 1872	23.00	383,000	1923	June 17, 1923	20.7	341,200
1873	Apr. 11, 1873	25.45	462,400	1924	July 2, 3, 1924	26.3	494,900
1874	June 19, 20, 1874	18.40	261,200	1925	June 25, 1925	19.9	325,800
1875	Aug. 3, 1875	29.80	637,200	1926	Sept. 29, 1926	24.5	438,000
1876	May 10, 12, 1876	b32.00	741,000	1927	Apr. 26, 1927	36.1	889,300
1877	June 14, 1877	26.60	505,600	1928	June 22, 1928	27.6	552,000
1878	June 15, 1878	25.75	476,800	1929	Apr. 25, 1929	b34.6	739,000
1879	July 3, 1879	21.15	332,200	1930	June 21, 1930	19.6	310,000
1880	July 12, 1880	25.50	466,000	1931	June 15, 1931	13.3	200,000
1881	May 5, 6, 1881	b33.65	822,000	1932	Dec. 1, 1931	22.11	356,000
1882	July 5, 1882	32.39	739,200	1933	May 17, 1933	27.0	434,000
1883	June 25, 26, 1883	b34.80	862,800	1934	Apr. 24, 1934	9.0	136,000
1884	Apr. 9, 10, 1884	28.10	543,600	1935	June 7, 1935	b33.52	649,000
1885	June 17, 1885	27.10	503,500	1936	Mar. 1, 1936	21.18	336,000
1886	May 13, 1886	27.00	499,500	1937	May 5, 1937	23.76	374,000
1887	Apr. 3, 1887	20.65	307,600	1938	May 27, 1938	26.57	434,000
1888	June 4, 1888	29.38	598,600	1939	Apr. 20, 1939	30.13	529,000
1889	June 1, 1889	24.62	416,200	1940	June 14, 1940	13.37	188,000
1890	July 1, 1890	20.60	307,600	1941	Apr. 22, 1941	26.15	451,000
1891	July 4, 1891	23.7	388,300	1942	June 30, 1942	34.48	666,000
1892	May 19, 1892	36.0	926,500	1943	May 24, 1943	38.94	840,000
1893	May 3, 1893	31.60	700,000	1944	Apr. 30, 1944	39.14	844,000
1894	May 11, 1894	23.4	379,600	1945	Apr. 21-23, 1945	c35.30	610,000
1895	July 8, 1895	17.0	229,000	1946	Jan. 13, 1946	28.00	502,000
1896	May 26, 28, 1896	27.70	507,000	1947	July 1, 2, 1947	40.26	783,000
1897	May 2, 1897	30.9	645,400	1948	Mar. 27, 1948	34.63	633,000
1898	May 23, 1898	27.20	487,000	1949	Mar. 11, 1949	24.41	425,000
1899	Apr. 27, 1899	25.68	432,400	1950	May 14, 1950	27.02	466,000
1900	Mar. 16, 1900	23.53	366,500	1951	July 21, 1951	b40.28	782,000
1901	Apr. 18, 1901	22.58	343,400	1952	Apr. 29, 30, 1952	b33.83	684,000
1902	July 26, 1902	26.89	475,300	1953	Apr. 4, 1953	22.57	369,000
1903	June 10, 11, 1903	b38.00	1,019,000	1954	June 6, 1954	18.65	292,000
1904	Apr. 29, 1904	33.60	777,600	1955	Feb. 23, 1955	18.62	312,000
1905	Sept. 21, 1905	30.20	613,200	1956	Oct. 8, 1955	14.68	230,000
1906	Apr. 15, 1906	26.20	449,400	1957	May 27, 1957	22.91	342,000
1907	July 25, 26, 1907	28.00	a519,000	1958	July 24, 1958	29.40	504,000
1908	June 20, 1908	34.95	850,000	1959	June 4, 1959	23.35	366,000
1909	July 15, 16, 1909	35.25	a860,600	1960	Apr. 10, 1960	33.78	670,000
1910	Jan. 13, 1910	25.2	416,400	1961	May 11, 1961	33.20	588,000

MISSISSIPPI RIVER MAIN STEM

Peak stages and discharges of Mississippi River at St. Louis, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Mar. 25,	1962	30.18				591,000
1963	Mar. 7,	1963	18.35				309,000
1964	Apr. 24,	1964	18.96				309,000
1965	Sept. 28,	1965	30.44				552,000

a Computed by Corps of Engineers.

b Occurred at different time than peak discharge.

c Occurred June 13, 1945

MERAMEC RIVER BASIN

7-0112. Love Creek near Salem, Mo.

Location.--Lat 37°38'10", long 91°33'35", in W¹/₂NE¹/₄ sec.23, T.34 N., R.6 W., on left bank just upstream from culvert under State Highways 32 and 72 and half a mile west of Salem.

Drainage area.--0.89 sq mi. Slope.--106 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed July 13, 1959, and removed April 14, 1964.

Stage-discharge relation.--Defined at 51, 144, and 262 cfs by indirect measurement. Defined below 20 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 27, 1955	4.05	65				
1956	Apr. 28, 1956	5.15	144				
1957	May 18, 1957	4.49	94				
1958	Dec. 16, 1957	4.17	73				
1959		(a)	(b)				
1960	Dec. 27, 1959	6.25	262				
1961	May 8, 1961	4.72	108				
1962	June 7, 1962	5.02	130				
1963	May 25, 1963	4.91	128				
1964	Apr. 5, 1964	4.40	85				
1965	Apr. 5, 1965	4.45	90				

a Stage below bottom of gage.

b Less than 40 cfs.

MERAMEC RIVER BASIN

7-0113. Ragan Branch near Rolla, Mo.
(Published as "Lenox Branch" prior to 1964)

Location.--Lat 37°49'05", long 91°41'45", in NE¼NE¼ sec.28, T.36 N., R.7 W., on left downstream wingwall of bridge on State Highway 72, 3 miles northwest of Lake Spring and 9 miles southeast of Rolla.

Drainage area.--6.58 sq mi. (Revised). Slope.--45.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined below 790 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown. Formerly published as "Lenox Branch".

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 19, 1949	3.94	1,600				
1950	June 9, 1950	5.31	4,200				
1951	Aug. 9, 1951	2.88	580				
1952	Nov. 15, 1951	1.90	170				
1953	No record						
1954	May 2, 1954	1.64	120				
1955	July 7, 1955	3.94	1,600				
1956	May 30, 1956	4.23	2,000				
1957	No record						
1958	July 17, 1958	6.90	10,000				
1959	(a)	(b)					
1960	Dec. 17, 1959	3.06	710				
1961	May 6, 1961	3.61	1,200				
1962	Mar. 20, 1962	2.10	230				
1963	Mar. 30, 1963	2.69	470				
1964	Apr. 5, 1964	3.01	660				
1965	Apr. 6, 1965	2.05	210				

a Stage below bottom of gage.

b Discharge not determined.

MERAMEC RIVER BASIN

7-0115. Green Acre Branch near Rolla, Mo.

Location--Lat 37°54'50", long 91°43'35", in NW¼SW¼ sec.20, T.37 N., R.7 W., on left bank 35 ft upstream from double concrete-box culvert under State Highway 72, 0.4 mile upstream from mouth, and 3 miles southeast of Rolla.

Drainage area--0.622 sq mi. Slope--87 ft per mi.

Gage--Recording gage and concrete control. Datum of gage is 958.82 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 290 cfs, and by slope-area measurements at 426 and 1,900 cfs.

Bankfull stage--3 ft.

Remarks--Base for partial-duration series, 50 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 23, 1949	2.02	53	1958	June 10, 1958	3.54	293
	Feb. 3, 1949	1.98	50		July 16, 1958	2.80	140
	Feb. 14, 1949	2.48	99		July 17, 1958	4.22	513
	July 16, 1949	3.23	210		July 30, 1958	2.83	144
	Sept. 12, 1949	2.28	76		July 31, 1958	2.69	125
	Sept. 18, 1949	2.24	72		Aug. 1, 1958	2.61	114
1950	Oct. 5, 1949	2.27	76				
	Oct. 11, 1949	3.06	183	1959	Apr. 18, 1959	2.68	123
	Oct. 20, 1949	2.44	94		Apr. 19, 1959	3.05	182
	Oct. 21, 1949	2.62	116		May 21, 1959	2.64	118
	Jan. 2, 1950	2.12	61				
	Jan. 3, 1950	3.22	215	1960	Dec. 17, 1959	2.70	126
	Jan. 13, 1950	2.96	165		May 6, 1960	2.98	169
	Feb. 12, 1950	2.06	56				
	Apr. 3, 1950	2.67	122	1961	May 5, 1961	3.89	396
	May 19, 1950	2.86	149		May 6, 1961	3.33	240
	May 29, 1950	3.98	426		June 8, 1961	3.84	380
	June 9, 1950	6.85	1,900				
	Aug. 13, 1950	2.12	61	1962	June 7, 1962	3.47	275
	Aug. 28, 1950	2.07	57		Sept. 24, 1962	2.56	108
1951	Nov. 7, 1950	2.04	55	1963	May 25, 1963	2.32	81
	May 22, 1951	2.64	118				
	June 12, 1951	2.40	90	1964	Apr. 5, 1964	3.19	209
	June 30, 1951	3.65	323		June 13, 1964	3.78	361
	July 9, 1951	2.95	164				
	July 12, 1951	2.92	158	1965	June 3, 1965	2.93	120
	Aug. 9, 1951	3.94	413		June 10, 1965	3.94	379
1952	Mar. 10, 1952	1.94	46.9		Sept. 4, 1965	3.03	140
					Sept. 14, 1965	4.11	438
1953	Apr. 23, 1953	4.39	577				
	June 26, 1953	2.18	67				
1954	May 22, 1954	2.97	167				
	May 28, 1954	2.49	100				
	May 31, 1954	2.30	78				
	June 2, 1954	3.36	247				
	June 9, 1954	4.96	821				
	July 24, 1954	2.83	144				
	Aug. 7, 1954	2.22	70				
1955	Oct. 11, 1954	3.06	183				
	Mar. 15, 1955	2.81	142				
	Mar. 20, 1955	2.59	112				
	May 12, 1955	3.70	337				
	May 28, 1955	2.51	102				
	June 5, 1955	2.24	72				
	Sept. 22, 1955	2.93	160				
1956	May 26, 1956	3.19	209				
	May 30, 1956	4.03	444				
	June 24, 1956	3.02	176				
	July 5, 1956	3.72	343				
1957	May 17, 1957	3.18	207				
	May 21, 1957	3.44	267				
	May 22, 1957	3.18	207				
	May 25, 1957	3.59	306				
	May 29, 1957	2.87	150				
	May 31, 1957	2.85	148				
	June 24, 1957	2.95	164				
	July 27, 1957	2.98	169				
	Aug. 16, 1957	2.6	113				

MERAMEC RIVER BASIN

7-0120. Behmke Branch near Rolla, Mo.

Location.--Lat 37°56'05", long 91°42'35", in NE¼NE¼ sec.17, T.37 N., R.7 W., on right bank 300 ft upstream from county highway bridge, a quarter of a mile upstream from mouth, and 3½ miles southeast of Rolla.

Drainage area.--1.05 sq mi. Slope.--77 ft per mi.

Gage.--Recording prior to Oct. 1, 1958; crest-stage gage thereafter. Datum of gage is 928.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 250 cfs and by slope-area measurements at 389 and 1,190 cfs.

Bankfull stage.--3 ft.

Remarks.--Base for partial-duration series, 90 cfs. Only annual peaks are shown subsequent to 1958.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Feb. 14, 1949	1.95	182	1963	Mar. 30, 1963	2.42	464
	July 16, 1949	1.80	119				
1950	Oct. 5, 1949	1.75	104	1964	June 13, 1964	2.32	396
	Oct. 11, 1949	2.18	304				
	Oct. 21, 1949	1.93	173	1965	Sept. 14, 1965	2.19	310
	Jan. 3, 1950	2.22	229				
	Jan. 13, 1950	2.08	248				
	Apr. 3, 1950	1.83	131				
	May 19, 1950	2.10	258				
	May 29, 1950	2.31	389				
	June 9, 1950	3.36	1,190				
	Aug. 14, 1950	2.08	248				
1951	May 22, 1951	1.72	94				
	June 30, 1951	2.16	293				
	July 9, 1951	2.02	216				
	July 12, 1951	2.04	227				
	Aug. 9, 1951	2.28	369				
1952	Mar. 10, 1952	1.70	88				
1953	Apr. 23, 1953	2.11	264				
1954	June 2, 1954	2.12	270				
	June 9, 1954	2.94	847				
1955	Oct. 11, 1954	2.11	264				
	Feb. 19, 1955	1.72	94				
	Mar. 15, 1955	2.03	222				
	Mar. 20, 1955	1.99	201				
	May 12, 1955	2.31	389				
	May 28, 1955	1.92	168				
	June 5, 1955	1.87	147				
	June 11, 1955	1.94	178				
	July 7, 1955	1.92	168				
	Sept. 22, 1955	2.10	258				
1956	May 26, 1956	2.13	275				
	May 30, 1956	2.28	369				
	June 24, 1956	2.24	342				
	July 3, 1956	2.22	329				
1957	May 17, 1957	2.20	316				
	May 21, 1957	2.24	342				
	May 22, 1957	2.15	287				
	May 25, 1957	2.16	293				
	May 29, 1957	2.08	248				
	May 31, 1957	2.03	222				
	June 29, 1957	2.01	211				
1958	June 10, 1958	2.29	375				
	July 16, 1958	2.00	206				
	July 17, 1958	2.94	847				
	July 30, 1958	1.92	168				
	July 31, 1958	1.92	168				
1959	May 17, 1959	-	200				
	May 21, 1959	2.31	389				
	May 22, 1959	1.92	168				
1960	Dec. 17, 1959	2.10	258				
1961	May 6, 1961	2.58	576				
1962	June 7, 1962	2.38	436				

MERAMEC RIVER BASIN

7-0120.5. Dry Fork near St. James, Mo.

Location--Lat 37°57'55", long 91°34'55", in SW¼SW¼ sec.34, T.38 N., R.6 W., on upstream side of bridge on State Highway 68, 2 miles southeast of St. James and 5.5 miles upstream from Meramec River.

Drainage area--370 sq mi. Slope--5.60 ft per mi.

Gage--Nonrecording. Prior to Dec. 9, 1948, at site 300 ft upstream at same datum. Datum of gage is 787.24 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 18,000 cfs and extended above by logarithmic plotting.

Bankfull stage--15 ft.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water years	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 9, 1944	11.55	3,890				
1945	June 8, 1945	19.37	18,800				
1946	Aug. 15, 1946	21.7	28,000				
1947	Apr. 25, 1947	17.14	12,200				
1948	July 7, 1948	16.1	10,600				
1949	Feb. 15, 1949	13.0	6,300				
1950	Jan. 3, 1950	17.0	12,300				

MERAMEC RIVER BASIN

7-0130. Meramec River near Steelville, Mo.

Location.--Lat 37°59'55", long 91°21'40", in NE¼ sec.21, T.38 N., R.4 W., on downstream side of first pier from left end of St. Louis-San Francisco Railway bridge, 400 ft upstream from highway bridge, 0.8 mile upstream from Whittenburg Creek, and 1½ miles north of Steelville.

Drainage area.--781 sq mi. Slope.--6.29 ft per mi.

Gage.--Nonrecording prior to May 23, 1934; recording thereafter. Prior to Dec. 21, 1922, at site 1 mile upstream at datum 5.8 ft higher. Datum of present gage is 681.68 ft above mean sea level, datum of 1929. Peak gage heights for period prior to Dec. 21, 1922, computed from plotted U. S. Weather Bureau readings and transferred to present site by comparative gage readings.

Stage-discharge relation.--Defined by current-meter measurements below 46,000 cfs; shifts in relation occur.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 9,200 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	26.5	a60,000	1937	May 3, 1937	14.15	14,900
1917	Apr. 8, 1917	6.65	5,180	1938	Feb. 18, 1938	13.84	14,100
1918	Apr. 25, 1918	18.7	33,400		May 24, 1938	14.14	14,700
	Apr. 28, 1918	10.7	9,480	1939	Mar. 11, 1939	10.94	9,500
	May 12, 1918	16.3	24,600		Apr. 17, 1939	17.67	25,100
1919	June 4, 1919	10.9	9,790	1940	May 2, 1940	10.53	8,900
1920	Oct. 27, 1919	24.1	55,000	1941	Apr. 20, 1941	16.92	22,600
	Nov. 1, 1919	11.5	10,700				
	Mar. 26, 1920	15.9	23,200	1942	June 14, 1942	14.28	15,800
	May 13, 1920	12.1	12,000		June 21, 1942	13.04	13,000
	May 20, 1920	11.0	9,790		June 26, 1942	11.19	9,970
	Sept. 11, 1920	12.5	12,900				
1921	Mar. 28, 1921	16.7	26,000	1943	Dec. 28, 1942	22.00	36,100
	Apr. 23, 1921	11.8	11,300		May 12, 1943	14.64	14,500
	Apr. 26, 1921	15.6	22,200		May 20, 1943	17.56	21,500
1922	Nov. 19, 1921	14.4	18,300	1944	May 10, 1944	10.02	7,190
	Mar. 15, 1922	12.5	12,900	1945	Mar. 3, 1945	13.23	11,900
	Mar. 31, 1922	15.4	21,600		Mar. 7, 1945	15.47	16,500
	Apr. 17, 1922	17.5	29,000		Mar. 31, 1945	14.70	14,800
	Apr. 28, 1922	12.4	12,700		Apr. 3, 1945	13.47	12,500
1923	June 16, 1923	12.26	11,800		Apr. 15, 1945	21.96	36,200
1924	May 29, 1924	12.43	11,900		May 30, 1945	12.08	10,000
	Aug. 12, 1924	12.40	11,900	1946	June 9, 1945	24.30	47,000
1925	Dec. 19, 1924	10.00	9,120		Feb. 14, 1946	17.10	20,300
1926	Nov. 8, 1925	8.50	7,270		Aug. 15, 1946	16.77	19,500
1927	Apr. 1, 1927	19.40	36,000	1947	Nov. 11, 1946	14.38	14,200
	Apr. 8, 1927	12.20	12,100		Apr. 25, 1947	20.35	30,100
	Apr. 15, 1927	13.25	14,800	1948	July 7, 1948	12.47	10,700
	May 25, 1927	18.95	34,400	1949	Jan. 19, 1949	13.01	11,600
	June 2, 1927	18.80	33,600		Feb. 16, 1949	16.68	19,300
	June 4, 1927	13.01	14,200	1950	Oct. 7, 1949	13.74	12,900
1928	Dec. 14, 1927	10.96	9,900		Oct. 12, 1949	13.21	11,900
	Apr. 6, 1928	15.97	23,600		Oct. 22, 1949	15.17	15,800
	June 10, 1928	17.90	30,300		Jan. 4, 1950	18.74	24,900
1929	May 7, 1929	14.25	17,600		Jan. 14, 1950	14.48	14,600
1930	Jan. 15, 1930	14.34	18,000		May 11, 1950	15.90	17,700
	Feb. 26, 1930	13.60	15,900	1951	Feb. 19, 1951	13.59	12,700
1931	June 10, 1931	3.53	1,930		July 1, 1951	15.57	17,000
1932	Jan. 23, 1932	4.00	2,460		July 11, 1951	13.46	12,500
1933	Apr. 16, 1933	15.60	18,000		July 14, 1951	20.43	30,100
	May 14, 1933	17.50	23,800	1952	Apr. 13, 1952	11.59	9,210
1934	Sept. 14, 1934	14.34	15,100	1953	May 4, 1953	8.39	5,160
1935	Mar. 12, 1935	19.53	31,500	1954	June 10, 1954	9.40	6,210
	June 21, 1935	20.31	34,600	1955	Mar. 21, 1955	12.60	10,800
	June 26, 1935	23.39	47,800	1956	May 31, 1956	9.76	6,640
1936	Nov. 11, 1935	9.96	8,160	1957	Apr. 5, 1957	13.12	12,100
					Apr. 28, 1957	12.76	11,600
					May 18, 1957	12.70	11,400

MERAMEC RIVER BASIN

Peak stages and discharges of Meramec River near Steelville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 24, 1957	17.36	21,400				
	May 26, 1957	12.62	11,300				
1958	Dec. 18, 1957	14.60	14,800				
	Mar. 25, 1958	15.88	17,700				
	July 17, 1958	13.37	12,600				
1959	May 22, 1959	6.03	3,250				
1960	Dec. 28, 1959	12.03	11,700				
1961	May 9, 1961	14.64	16,200				
1962	Mar. 21, 1962	13.76	14,600				
1963	May 27, 1963	11.82	11,200				
1964	Apr. 6, 1964	13.41	13,800				
1965	Apr. 7, 1965	11.69	11,000				

a Annual peak only.

MERAMEC RIVER BASIN

7-0145. Meramec River near Sullivan, Mo.

Location.--Lat 38°09'30", long 91°06'30", in SE¼NE¼ sec.35, T.40 N., R.2 W., on right bank at upstream side of Sappington Bridge, 3 3/4 miles downstream from Brazil Creek and 4 miles southeast of Sullivan.

Drainage area.--1,475 sq mi. Slope.--4.98 ft per mi.

Gage.--Nonrecording prior to Oct. 20, 1952; recording thereafter. Datum of gage is 581.82 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 71,000 cfs; shifts in relation occur.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	33.5	90,000	1947	Nov. 10, 1946 Apr. 26, 1947	16.00 24.80	16,500 40,500
1922	Nov. 19, 1921 Mar. 16, 1922 Mar. 31, 1922 Apr. 17, 1922 Apr. 29, 1922	16.05 14.20 16.60 16.80 13.90	16,500 12,600 18,000 18,400 12,000	1948	Jan. 2, 1948 July 8, 1948	14.60 13.00	13,200 10,100
1923	Mar. 13, 1923 Mar. 16, 1923 May 17, 1923 June 17, 1923	14.00 14.15 13.80 13.90	12,200 12,600 11,800 12,000	1949	Jan. 19, 1949 Jan. 25, 1949 Jan. 28, 1949 Feb. 15, 1949 Mar. 19, 1949	15.60 15.30 13.80 20.30 13.30	15,300 14,700 11,600 27,000 10,600
1924	Apr. 9, 1924 May 30, 1924	17.25 17.10	19,400 19,200	1950	Oct. 7, 1949 Oct. 13, 1949 Oct. 23, 1949 Dec. 22, 1949 Jan. 4, 1950 Jan. 14, 1950 May 11, 1950	15.05 14.40 16.54 13.63 25.50 17.05 18.64	14,000 12,800 17,400 11,200 42,800 18,600 22,600
1925	Dec. 20, 1924	16.00	16,500				
1926	Nov. 8, 1925	14.60	13,400				
1927	Mar. 20, 1927 Apr. 2, 1927 Apr. 9, 1927 Apr. 16, 1927 May 26, 1927 June 2, 1927 June 5, 1927	13.70 22.80 15.30 18.80 21.90 22.89 14.60	11,600 35,000 14,900 23,700 32,400 35,300 13,400	1951	Feb. 19, 1951 Mar. 12, 1951 July 2, 1951 July 14, 1951	17.22 13.94 16.73 21.30	19,100 11,800 17,900 29,800
				1952	Apr. 5, 1952 Apr. 13, 1952	13.90 15.00	11,800 14,000
1928	Nov. 8, 1927 Dec. 1, 1927 Dec. 14, 1927 Apr. 6, 1928 Apr. 23, 1928 June 11, 1928 June 14, 1928 June 21, 1928 June 29, 1928	15.20 14.70 17.30 19.80 13.20 20.30 14.30 13.80 13.60	14,700 13,600 19,700 26,400 10,600 27,800 12,800 11,800 11,400	1953	Mar. 4, 1953	12.05	8,590
				1954	June 10, 1954	11.70	8,190
				1955	Feb. 21, 1955 Mar. 21, 1955	13.14 15.58	11,200 16,100
				1956	May 16, 1956	11.00	8,060
1929	Apr. 10, 1929 May 3, 1929 May 7, 1929 May 15, 1929	16.50 13.80 18.20 15.20	17,700 11,800 22,000 14,700	1957	Feb. 27, 1957 Mar. 25, 1957 Apr. 4, 1957 Apr. 22, 1957 Apr. 27, 1957 May 18, 1957 May 23, 1957 June 30, 1957	14.70 13.58 18.85 17.22 17.42 17.22 21.73 22.61	14,300 12,100 23,600 19,800 20,300 19,800 31,200 33,700
1930	Jan. 14, 1930 Feb. 27, 1930 Mar. 8, 1930	18.20 16.70 15.20	22,000 18,200 14,700				
1931	Apr. 27, 1931	5.56	2,300	1958	Dec. 18, 1957 Mar. 10, 1958 Mar. 25, 1958 July 18, 1958	16.95 12.40 18.86 16.57	19,400 10,000 23,900 18,500
1932	Nov. 20, 1931	7.75	3,800				
1933	Apr. 16, 1933 May 14, 1933	19.60 22.00	25,900 32,700	1959	Mar. 12, 1959	8.06	4,490
1944	May 4, 1944	17.0	19,000	1960	Dec. 19, 1959 Dec. 29, 1959	13.19 13.94	10,200 12,100
1945	Mar. 3, 1945 Mar. 7, 1945 Mar. 31, 1945 Apr. 3, 1945 Apr. 15, 1945 Apr. 30, 1945 June 9, 1945	15.80 18.35 21.30 17.40 26.15 14.28 32.00	16,000 22,600 30,700 20,000 45,000 12,800 77,300	1961	Mar. 6, 1961 May 9, 1961	14.96 22.43	15,000 33,200
				1962	Mar. 21, 1962	17.91	21,500
				1963	May 28, 1963	14.91	14,700
1946	Feb. 14, 1946 Aug. 16, 1946	19.08 16.40	23,900 17,500	1964	Mar. 10, 1964 Apr. 6, 1964	14.99 16.17	15,000 17,600
				1965	Apr. 7, 1965	15.22	15,300

a Annual peak only.

MERAMEC RIVER BASIN

7-0150. Bourbeuse River near St. James, Mo.

Location--Lat 38°02'00", long 91°38'45", in NW¼ sec.12, T.38 N., R.7 W., on left bank 735 ft upstream from bridge on State Highway 68 and 3 miles northwest of St. James.

Drainage area--21.3 sq mi. Slope--3¼ ft per mi.

Gage--Recording. Datum of gage is 899.46 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 6,200 cfs.

Bankfull stage--8 ft.

Remarks--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 20, 1948	8.80	a4,100	1965	Sept. 4, 1965	8.7	3,860
1949	Feb. 14, 1949	8.35	3,260		Sept. 14, 1965	7.63	2,160
	Aug. 19, 1949	7.76	2,300				
	Sept. 12, 1949	9.28	4,890				
	Sept. 12, 1949	9.01	4,370				
1950	Oct. 4, 1949	10.07	6,240				
	Oct. 5, 1949	8.68	3,860				
	Oct. 11, 1949	10.73	7,580				
	Oct. 11, 1949	11.08	8,250				
	Oct. 20, 1949	8.95	4,280				
	Oct. 21, 1949	8.25	3,100				
	Jan. 3, 1950	9.25	4,800				
	Jan. 13, 1950	8.80	4,030				
	Apr. 3, 1950	7.65	2,160				
	Apr. 4, 1950	7.68	2,230				
	May 10, 1950	7.61	2,080				
	May 19, 1950	9.16	4,620				
	May 29, 1950	8.40	3,350				
1951	Mar. 10, 1951	7.27	1,640				
	Apr. 21, 1951	7.92	2,540				
	June 30, 1951	8.37	3,260				
	July 11, 1951	7.43	1,880				
	Aug. 9, 1951	8.04	2,780				
1952	Dec. 14, 1951	7.53	2,020				
1953	Apr. 23, 1953	9.12	4,540				
1954	May 22, 1954	7.43	1,880				
	June 9, 1954	9.82	5,790				
1955	Mar. 20, 1955	7.86	2,460				
1956	July 3, 1956	6.74	1,130				
1957	Mar. 24, 1957	8.15	2,940				
	May 17, 1957	9.38	5,070				
	May 18, 1957	9.23	4,800				
	May 21, 1957	10.09	6,330				
	May 22, 1957	8.50	3,520				
	May 25, 1957	8.40	3,350				
1958	Dec. 16, 1957	8.12	2,860				
	July 17, 1958	7.85	2,460				
	July 31, 1958	8.39	3,350				
	Aug. 1, 1958	7.67	2,160				
1959	May 17, 1959	7.72	2,230				
	May 21, 1959	9.09	4,540				
1960	Dec. 17, 1959	8.20	3,020				
	May 6, 1960	8.0	2,700				
1961	Mar. 7, 1961	7.21	1,580				
	May 6, 1961	8.95	4,280				
	May 8, 1961	7.80	2,380				
1962	Mar. 20, 1962	7.42	1,820				
1963	May 25, 1963	6.52	938				
1964	Apr. 5, 1964	8.59	3,690				
	June 13, 1964	10.05	6,240				

a Annual peak only.

MERAMEC RIVER BASIN

7-0155. Lanes Fork near Rolla, Mo.

Location--Lat 37°59'33", long 91°43'36", in NE¼NE¼ sec.30, T.38 N., R.7 W., on left bank 100 ft upstream from farm road bridge, 300 ft west of Highway V, 1 mile north of U.S. Highway 66, and 4½ miles northeast of Rolla.

Drainage area--0.22 sq mi. Slope--41.1 ft per mi.

Gage--Recording.

Stage-discharge relation--Defined below 125 cfs by current-meter measurements.

Remarks--Base for partial-duration series, 30 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Mar. 10, 1952	3.66	25.6				
1953	Apr. 23, 1953	4.94	136				
1954	June 7, 1954	3.96	37.1				
	June 9, 1954	4.94	136				
1955	Mar. 20, 1955	4.05	41.1				
	June 11, 1955	3.88	33.8				
	June 25, 1955	3.79	30.3				
	July 23, 1955	4.00	38.8				
1956	May 26, 1956	3.56	22.4				
1957	Mar. 24, 1957	4.06	44.1				
	May 17, 1957	4.65	95				
	May 18, 1957	4.35	63				
	May 21, 1957	4.63	93				
	May 21, 1957	4.91	131				
	May 22, 1957	4.51	79				
	May 25, 1957	4.20	51				
1958	Dec. 16, 1957	4.27	56				
	July 17, 1958	4.48	76				
	July 31, 1958	4.32	60				
	Aug. 1, 1958	4.01	41.8				
1959	Feb. 9, 1959	4.07	44.6				
	May 17, 1959	3.88	35.9				
1960	Dec. 17, 1959	4.26	56				
	Dec. 27, 1959	3.80	35.5				
	May 6, 1960	4.60	89				
1961	Mar. 6, 1961	3.89	36.4				
	May 6, 1961	4.57	86				
	May 8, 1961	3.92	37.7				
	May 8, 1961	3.89	36.4				
	June 14, 1961	4.01	41.8				
	July 20, 1961	4.30	58				
1962	Mar. 20, 1962	3.75	30.5				
1963	May 25, 1963	3.91	37.2				
1964	Apr. 5, 1964	4.31	59				
	June 13, 1964	4.77	110				
1965	June 2, 1965	4.04	43.2				
	Sept. 4, 1965	4.78	111				
	Sept. 14, 1965	4.32	60				

MERAMEC RIVER BASIN

7-0157. Lanes Fork near Vichy, Mo.

Location.--Lat 36°06'15", long 91°42'45", in SW¼NW¼ sec.17, T.39 N., R.7 W., at bridge on State Highway 68, 1¼ miles downstream from Bailey Creek, 2½ miles east of Vichy, and 9 miles upstream from mouth.

Drainage area.--24.1 sq mi. Slope.--27 ft per mi.

Gage.--Nonrecording prior to Jan. 12, 1950; recording Jan. 12, 1950, to Sept. 11, 1959; crest-stage gage thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 7,100 cfs.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 1,500 cfs. Only annual peaks are shown prior to 1951 and subsequent to 1958.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 9, 1944	8.3	3,700				
1945	June 7, 1945	12.0	9,400				
1948	July 12, 1948	8.5	4,490				
1949	Feb. 16, 1949	6.6	2,660				
1950	Oct. 4, 1949	10.5	7,120				
1951	Mar. 10, 1951	5.32	1,630				
	May 22, 1951	6.02	2,170				
	June 30, 1951	6.57	2,660				
	July 11, 1951	5.30	1,630				
	July 13, 1951	5.97	2,170				
	Aug. 9, 1951	7.97	3,960				
	Aug. 27, 1951	6.67	2,750				
	Aug. 28, 1951	5.49	1,780				
1952	Oct. 22, 1951	5.57	1,820				
1953	Apr. 23, 1953	4.82	1,290				
1954	May 22, 1954	6.55	2,660				
1955	Mar. 20, 1955	5.79	2,010				
	June 11, 1955	5.95	2,170				
	July 24, 1955	5.13	1,520				
1956	July 3, 1956	5.67	1,890				
1957	Mar. 24, 1957	6.75	2,840				
	Apr. 3, 1957	5.30	1,630				
	May 17, 1957	11.70	8,920				
	May 21, 1957	8.65	4,600				
	May 23, 1957	10.10	6,530				
	June 28, 1957	6.86	2,920				
1958	Mar. 8, 1958	5.05	1,460				
	July 31, 1958	7.70	3,660				
	Aug. 1, 1958	7.78	3,760				
1959	May 17, 1959	7.00	3,010				
1960	May 6, 1960	7.99	3,960				
1961	May 6, 1961	8.24	4,160				
1962	Mar. 20, 1962	7.51	3,470				
1963	May 25, 1963	5.10	1,490				
1964	Apr. 5, 1964	7.73	3,690				
1965	Sept. 4, 1965	9.33	5,450				

MERAMEC RIVER BASIN

7-0158. Langenberg Branch near Rosebud, Mo.

Location--Lat 38°23'00", long 91°25'45", in SE 1/4 sec. 13, T.42 N., R.5 W., on right bank just upstream from culvert under State Highway 28 about 1.7 miles west of Rosebud, 1.1 miles west on State Highway 28 from junction U.S. 50 and State Highway 28, approximately 0.6 mile west of Rosebud.

Drainage area--0.64 sq mi. Slope--100 ft per mi.

Gage--Crest-stage gage; supplemental recording gage installed Apr. 15, 1964.

Stage-discharge relation--Defined at 48 and 143 cfs by indirect measurements.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Jan. 14, 1960	8.57	88				
1961	May 8, 1961	9.50	180				
1962	Mar. 20, 1962	9.18	145				
1963	Mar. 30, 1963	7.99	43				
1964	June 5, 1964	8.65	95				
1965	Sept. 4, 1965	8.25	61				

MERAMEC RIVER BASIN

7-0160. Bourbeuse River near Spring Bluff, Mo.

Location.--Lat 38°18'40", long 91°16'45", in NE¼ sec.8, T.41 N., R.3 W., on downstream side of highway bridge, 1 mile downstream from Boone Creek, 3.5 miles northwest of Spring Bluff, and 9.5 miles northwest of Sullivan.

Drainage area.--608 sq mi. Slope.--3.92 ft per mi.

Gage.--Nonrecording. Datum of gage is 626.34 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 31,000 cfs.

Bankfull stage.--27.5 ft.

Remarks.--Station operated to obtain flows above 1,000 cfs only. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	35.7	a60,000	1963	May 27, 1963	17.96	7,850
1944	Apr. 11, 1944	21.3	10,200	1964	Apr. 6, 1964	24.22	14,900
	Apr. 23, 1944	21.4	10,400		May 29, 1964	21.77	11,700
	May 10, 1944	23.63	13,700				
1945	Mar. 3, 1945	23.6	13,700	1965	Apr. 6, 1965	18.06	7,940
	Mar. 7, 1945	22.1	11,300				
	Mar. 31, 1945	25.1	16,400				
	Apr. 3, 1945	24.9	16,000				
	Apr. 15, 1945	22.5	11,900				
	June 9, 1945	31.0	31,500				
1946	Feb. 14, 1946	22.87	12,500				
1947	Apr. 26, 1947	31.40	33,300				
1948	Jan. 2, 1948	21.91	11,100				
	July 20, 1948	22.16	11,500				
	July 26, 1948	24.35	15,100				
1949	Feb. 16, 1949	21.91	11,100				
1950	Oct. 7, 1949	24.8	15,800				
	Oct. 12, 1949	30.34	28,600				
	Oct. 21, 1949	23.05	12,900				
	Jan. 4, 1950	28.0	22,000				
	Jan. 14, 1950	23.3	13,200				
	Apr. 5, 1950	22.55	12,100				
	May 11, 1950	22.3	11,600				
	May 20, 1950	25.65	17,300				
	May 27, 1950	21.28	10,200				
1951	Mar. 12, 1951	22.57	12,100				
	July 14, 1951	29.49	25,800				
	Aug. 28, 1951	22.98	12,700				
1952	Apr. 5, 1952	20.48	9,200				
1953	Mar. 4, 1953	18.79	7,300				
1954	June 10, 1954	18.47	7,000				
1955	Feb. 21, 1955	20.10	9,100				
1956	May 31, 1956	20.75	9,800				
1957	Feb. 27, 1957	25.53	17,100				
	Mar. 26, 1957	24.07	14,600				
	May 18, 1957	27.99	22,000				
	May 23, 1957	30.26	28,600				
	June 15, 1957	31.79	35,100				
	June 28, 1957	24.62	15,500				
	June 30, 1957	34.71	50,700				
1958	Mar. 9, 1958	21.21	10,200				
	Mar. 25, 1958	21.91	11,100				
1959	Feb. 11, 1959	21.23	11,300				
1960	Dec. 28, 1959	18.37	8,560				
1961	May 9, 1961	28.76	23,800				
1962	Mar. 21, 1962	27.97	22,000				

a Annual peak only.

MERAMEC RIVER BASIN

7-0165. Bourbeuse River at Union, Mo.

Location.--Lat 38°26'45", long 90°59'30", in SW¼ sec.26, T.43 N., R.1 W., on right bank on downstream side of bridge pier on U. S. Highway 50, 800 ft upstream from Flat Creek, half a mile east of Union, and 7 miles upstream from Birch Creek. Records include flow of Flat Creek.

Drainage area.--808 sq mi, including that of Flat Creek. Slope.--2.76 ft per mi.

Gage.--Nonrecording prior to June 12, 1944, at various sites nearby; recording thereafter. Prior to Oct. 1, 1948, at datum 3.00 ft higher. Datum of present gage is 488.58 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur frequently due largely to gravel removal from control. Discharges of the 1897 and 1915 floods determined from extension of rating curve for main channel based on measurements made since 1921 and study of overflow areas in vicinity of gaging station.

Bankfull stage.--15 ft.

Remarks.--Peaks for period prior to June 7, 1921, computed from plotted U. S. Weather Bureau readings. Base for partial-duration series, 12,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897		27.15	a44,500	1939	Apr. 19, 1939	16.58	12,200
1915	Aug. 22, 1915	28.5	a50,000	1940	Feb. 29, 1940	9.45	3,700
1916	February 1916	21.0	a21,100	1941	Apr. 21, 1941	20.09	18,700
1917	Apr. 30, 1917	14.0	8,840	1942	June 23, 1942 June 28, 1942	17.60 21.0	13,700 21,100
1918	Apr. 30, 1918	18.7	15,700	1943	Dec. 29, 1942 May 13, 1943 May 20, 1943	22.0 17.04 19.60	24,100 12,800 17,600
1919	Mar. 18, 1919	14.2	9,090	1944	May 11, 1944	16.0	11,400
1920	Oct. 30, 1919 Nov. 2, 1919 May 22, 1920	22.3 16.5 18.7	25,100 12,100 15,700	1945	Apr. 2, 1945 Apr. 4, 1945 Apr. 16, 1945 June 10, 1945	17.80 17.10 16.20 23.10	14,700 13,600 12,100 28,500
1921	Mar. 29, 1921 Apr. 28, 1921	17.3 18.1	13,200 14,600	1946	Feb. 16, 1946	15.46	11,100
1922	Apr. 2, 1922 Apr. 19, 1922	17.70 16.94	14,600 13,100	1947	Apr. 27, 1947	22.1	25,100
1923	Mar. 17, 1923	14.10	8,930	1948	July 28, 1948	14.89	10,500
1924	Dec. 15, 1923 May 31, 1924	16.64 17.16	12,600 13,700	1949	Feb. 17, 1949	14.82	10,400
1925	Dec. 21, 1924	15.40	10,700	1950	Oct. 8, 1949 Oct. 14, 1949 Oct. 23, 1949	15.85 20.05 15.82	12,500 20,200 12,500
1926	Nov. 10, 1925	16.14	11,800	1951	Jan. 6, 1950 Jan. 15, 1950 Apr. 6, 1950 May 22, 1950	19.39 15.62 15.35 16.08	18,900 12,200 12,000 12,900
1927	Mar. 22, 1927 Apr. 3, 1927	17.65 22.10	13,300 22,500	1952	July 15, 1951	19.79	19,800
1928	Dec. 3, 1927 Apr. 7, 1928	17.27 20.00	12,900 17,100	1953	Apr. 6, 1952	13.20	8,970
1929	Mar. 18, 1929 May 21, 1929	16.78 16.90	12,200 12,400	1954	Mar. 5, 1953	11.85	7,330
1930	Jan. 16, 1930	17.00	12,500	1955	June 11, 1954	10.76	6,250
1931	May 21, 1931	12.20	6,650	1956	Feb. 22, 1955	12.14	7,670
1932	Jan. 3, 1932	13.80	8,540	1957	June 2, 1956	12.98	8,730
1933	May 16, 1933	20.55	18,300	1958	Mar. 1, 1957 Mar. 27, 1957 May 20, 1957 May 24, 1957 June 15, 1957 July 1, 1957	17.16 15.97 17.72 20.46 21.28 24.44	15,100 13,000 16,000 22,100 24,100 33,100
1934	Sept. 16, 1934	17.10	12,600	1959	Mar. 26, 1958	14.96	11,000
1935	Mar. 13, 1935 June 23, 1935 June 29, 1935	17.90 19.00 16.60	13,800 15,400 12,000	1960	Feb. 12, 1959	13.96	9,140
1936	Apr. 7, 1936	11.90	6,290	1961	Dec. 29, 1959	12.19	7,670
1937	May 5, 1937 June 12, 1937	17.78 18.42	13,600 14,500		May 9, 1961	20.19	20,200
1938	Feb. 20, 1938 June 13, 1938	17.00 23.23	12,800 28,200				

MERAMEC RIVER BASIN

Peak stages and discharges of Bourbeuse River at Union, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1962	Mar. 23, 1962	17.82	15,900				
1963	May 28, 1963	11.28	7,100				
1964	Apr. 8, 1964	16.59	14,000				
1965	Apr. 8, 1965	11.72	7,520				

a Annual peak only.

MERAMEC RIVER BASIN

7-0170. Meramec River at Robertsville, Mo.

Location.--Lat 38°25'40", long 90°49'35", in SW¼NW¼ sec.32, T.43 N., R.2 E., at county highway bridge, 1 mile northwest of Robertsville and 1 3/4 miles upstream from Calvey Creek.

Drainage area.--2,673 sq mi. Slope.--3.83 ft per mi.

Gage.--Recording gage to Sept. 30, 1951 (discontinued). Datum of gage is 448.24 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 97,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 20,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	36.1	a125,000				
1940	May 3, 1940	12.49	11,100				
1941	Apr. 22, 1941	25.20	39,400				
1942	June 1, 1942	19.68	24,500				
	June 16, 1942	19.21	23,400				
	June 28, 1942	24.20	34,600				
1943	Dec. 30, 1942	30.12	65,600				
	May 13, 1943	22.70	32,100				
	May 20, 1943	26.50	45,600				
	June 9, 1943	19.20	23,400				
1944	May 11, 1944	17.10	19,200				
1945	Mar. 5, 1945	20.08	25,400				
	Mar. 9, 1945	21.78	29,700				
	Apr. 2, 1945	26.12	43,800				
	Apr. 4, 1945	22.62	31,900				
	Apr. 16, 1945	29.22	60,200				
	June 10, 1945	34.0	102,000				
1946	Feb. 16, 1946	23.22	33,600				
1947	Nov. 12, 1946	18.36	21,700				
	Apr. 27, 1947	28.95	59,100				
1948	Jan. 3, 1948	16.30	17,700				
1949	Feb. 17, 1949	22.80	32,400				
1950	Oct. 14, 1949	20.50	26,400				
	Oct. 24, 1949	20.36	26,200				
	Jan. 6, 1950	29.17	60,400				
	Jan. 16, 1950	21.80	29,700				
	Apr. 4, 1950	17.48	20,000				
	May 13, 1950	22.68	32,400				
1951	Feb. 21, 1951	21.00	27,600				
	Mar. 14, 1951	18.22	21,300				
	July 3, 1951	18.23	21,300				
	July 16, 1951	26.38	45,200				

a Annual peak only.

MERAMEC RIVER BASIN

7-0175. Dry Branch near Bonne Terre, Mo.

Location.--Lat 37°55'46", long 90°27'40", at west-central edge of Survey 3062, T.37 N., R.5 E., on downstream side of highway bridge T-397 on County Highway K, 0.5 mile above Terre Bleue Creek, and 4.5 miles east of Bonne Terre.

Drainage area.--3.35 sq mi. Slope.--48.5 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 1,490 cfs by indirect measurement and below 254 cfs by current-meter measurements.

Remarks.--Base for partial-duration series 300 cfs. Only annual peaks are shown subsequent to 1959 water year.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 7, 1956	3.24	a 506	1957	Feb. 26, 1957	2.75	312
	May 15, 1956	2.67	a 291		Mar. 24, 1957	3.22	498
	June 24, 1956	3.63	a 670		Apr. 3, 1957	3.18	482
1957	May 17, 1957	2.95	390		May 17, 1957	2.95	390
	May 19, 1957	2.94	386		May 19, 1957	2.94	386
	May 22, 1957	3.22	498		May 22, 1957	3.22	498
	May 25, 1957	3.15	470		May 25, 1957	3.15	470
	June 8, 1957	3.16	474		June 8, 1957	3.16	474
	June 28, 1957	3.42	570		June 28, 1957	3.42	570
	June 30, 1957	5.55	1,520		June 30, 1957	5.55	1,520
	July 29, 1957	3.21	494		July 29, 1957	3.21	494
	Aug. 3, 1957	3.73	710		Aug. 3, 1957	3.73	710
1958	Apr. 3, 1958	2.88	369	1959	Mar. 14, 1959	2.91	380
	Apr. 28, 1958	2.95	394		Apr. 18, 1959	3.42	570
	July 17, 1958	2.99	409		May 22, 1959	3.07	439
1959	Mar. 14, 1959	2.91	380		May 25, 1959	3.13	462
	Apr. 18, 1959	3.42	570		July 23, 1959	2.84	354
	May 22, 1959	3.07	439		Sept. 28, 1959	2.95	402
	May 25, 1959	3.13	462	1960	Jan. 14, 1960	2.83	350
	July 23, 1959	2.84	354		June 14, 1961	3.82	730
1960	Sept. 28, 1959	2.95	402	1962	Sept. 14, 1962	4.25	910
	Jan. 14, 1960	2.83	350		June 10, 1963	3.30	530
1961	June 14, 1961	3.82	730	1964	Mar. 9, 1964	2.96	398
1962	Sept. 14, 1962	4.25	910	1965	Apr. 6, 1965	4.42	975
1963	June 10, 1963	3.30	530				

MERAMEC RIVER BASIN

7-0177. Fountain Farm Branch near Potosi, Mo.
(Published as "Keyes Branch" prior to 1958).

Location.--Lat 37°58'20", long 90°43'40", in SE¼NW¼ sec.32, T.38 N., R.3 E., on left bank just upstream from culvert under County Road E about 4 miles northeast of Potosi.

Drainage area.--2.16 sq mi. Slope.--71.8 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 778 and 1,890 cfs by indirect measurements. Defined below 70 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	June 30, 1957	18.36	1,890				
1958	Dec. 18, 1957	11.91	230				
1959	May 27, 1959	12.50	350				
1960	Dec. 12, 1959	11.78	210				
1961	Mar. 5, 1961	12.15	270				
1962		(a)	(b)				
1963	May 16, 1963	12.17	270				
1964	Apr. 5, 1964	12.32	310				
1965	June 3, 1965	12.97	460				

a Stage below zero of gage.

b Discharge less than 100 cfs.

MERAMEC RIVER BASIN

7-0180. Big River near DeSoto, Mo.

Location.--Lat 38°07'20", long 90°40'30", in SW¼NW¼ sec.11, T.39 N., R.3 E., near right bank on downstream side of pier of Mammoth Bridge, 300 ft upstream from Mammoth Creek, 1½ miles downstream from Mineral Fork, and 6½ miles west of DeSoto. Records include flow of Mammoth Creek.

Drainage area.--718 sq mi, including that of Mammoth Creek. Slope.--4.63 ft per mi.

Gage.--Recording. Datum of gage is 538.79 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Discharge of the flood in August 1915 determined from extension of rating curve above 37,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	29.4	a70,500				
1949	Feb. 15, 1949	19.9	a21,300				
1950	Oct. 6, 1949	15.37	11,000				
	Jan. 4, 1950	23.91	36,600				
	Jan. 13, 1950	16.77	13,400				
	Feb. 13, 1950	14.40	10,000				
	May 10, 1950	16.32	12,800				
	Aug. 13, 1950	15.61	11,700				
	Aug. 15, 1950	16.16	12,600				
	Sept. 2, 1950	16.17	12,600				
1951	Feb. 18, 1951	17.76	15,100				
	Feb. 21, 1951	15.73	11,100				
	July 13, 1951	23.78	36,200				
1952	Apr. 4, 1952	15.40	10,600				
	Apr. 13, 1952	15.17	10,300				
1953	Mar. 4, 1953	15.71	11,100				
1954	June 9, 1954	15.20	10,700				
1955	Mar. 21, 1955	17.03	13,300				
1956	May 16, 1956	12.20	7,200				
1957	Feb. 27, 1957	16.74	12,800				
	Mar. 25, 1957	18.15	16,900				
	Apr. 3, 1957	21.46	27,400				
	Apr. 22, 1957	14.92	10,200				
	Apr. 28, 1957	16.82	13,500				
	May 17, 1957	16.60	13,100				
	May 20, 1957	15.87	11,700				
	May 23, 1957	19.04	19,200				
	June 30, 1957	27.15	55,800				
	July 29, 1957	18.79	18,600				
1958	Dec. 18, 1957	17.56	15,400				
	Mar. 24, 1958	17.48	15,100				
	July 19, 1958	15.18	10,600				
1959	Nov. 18, 1959	12.55	7,660				
1960	Dec. 18, 1959	16.40	12,700				
1961	Mar. 6, 1961	18.00	16,400				
	May 9, 1961	19.94	21,900				
1962	Mar. 21, 1962	17.84	15,800				
1963	May 18, 1963	15.55	11,200				
1964	Mar. 9, 1964	18.25	16,900				
1965	Apr. 6, 1965	15.65	11,500				

a Annual peak only.

MERAMEC RIVER BASIN

7-0185. Big River at Byrnesville, Mo.

Location.--Lat 38°21'45", long 90°39'05", in SE¼ sec.12, T.42 N., R.3 E., at county highway bridge at Byrnesville, 4 miles upstream from Head Creek.

Drainage area.--917 sq mi. Slope.--3.36 ft per mi.

Gage.--Nonrecording prior to Mar. 9, 1940; recording thereafter. Datum of gage is 433.69 ft above mean sea level, datum of 1929. Since Aug. 22, 1945, auxiliary wire-weight gage 4 miles downstream.

Stage-discharge relation.--Defined by current-meter measurements. Occasional backwater from Meramec River; slope used as a factor since 1945. Discharge for flood of Aug. 21, 1915, from slope-area measurement.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 11,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 21, 1915	30.2	a80,000	1945	Mar. 4, 1945	18.57	13,500
					Mar. 7, 1945	20.84	19,300
1923	Mar. 13, 1923	17.30	11,000		Apr. 1, 1945	23.4	28,300
	May 17, 1923	17.40	11,100		Apr. 16, 1945	22.17	23,600
					June 10, 1945	22.12	17,500
1924	Apr. 10, 1924	17.10	10,800				
1925	Dec. 20, 1924	12.58	6,200	1946	Feb. 15, 1946	21.57	21,800
					May 2, 1946	19.02	14,200
1926	Nov. 9, 1925	18.97	13,100		May 18, 1946	17.91	11,300
1927	Apr. 2, 1927	22.63	21,900	1947	Apr. 26, 1947	23.5	28,000
	Apr. 16, 1927	19.82	14,800		July 2, 1947	19.56	15,800
	May 26, 1927	18.47	12,400				
	June 3, 1927	17.98	11,800	1948	Jan. 3, 1948	18.6	13,100
					May 18, 1948	18.83	13,700
1928	Dec. 2, 1927	17.41	11,100				
	Dec. 15, 1927	17.60	11,400	1949	Jan. 20, 1949	18.82	13,300
	Apr. 7, 1928	17.38	11,100		Jan. 26, 1949	20.31	18,600
	June 11, 1928	18.84	12,800		Feb. 16, 1949	20.39	18,700
	June 22, 1928	18.65	12,600				
	June 30, 1928	17.66	11,500	1950	Jan. 5, 1950	25.23	36,900
					Jan. 14, 1950	18.54	13,400
1929	May 7, 1929	18.62	12,700		Apr. 4, 1950	18.09	12,500
	May 15, 1929	20.00	15,200		May 12, 1950	18.34	12,600
1930	Jan. 15, 1930	21.00	17,400	1951	Feb. 20, 1951	18.82	14,100
					July 14, 1951	23.48	30,500
1931	Apr. 21, 1931	10.10	3,940				
1932	Aug. 13, 1932	13.35	7,000	1952	Apr. 14, 1952	17.37	10,500
1933	Apr. 17, 1933	21.57	18,900	1953	Mar. 5, 1953	16.97	10,200
	May 15, 1933	21.70	19,200				
1934	May 16, 1934	13.70	7,080	1954	June 10, 1954	16.93	10,000
1935	Mar. 12, 1935	24.65	28,800	1955	Mar. 22, 1955	18.20	12,700
	June 12, 1935	18.62	12,700				
	June 22, 1935	20.35	15,800	1956	May 17, 1956	13.59	6,640
1936	Nov. 11, 1935	15.97	9,600	1957	Feb. 28, 1957	18.00	12,300
					Mar. 26, 1957	19.76	17,600
1937	Jan. 16, 1937	20.06	17,300		Apr. 5, 1957	22.85	30,100
	Mar. 4, 1937	19.00	14,400		Apr. 29, 1957	18.95	14,000
					May 24, 1957	20.29	20,000
1938	Feb. 19, 1938	22.53	24,600		June 15, 1957	20.50	13,100
	Mar. 17, 1938	19.05	14,400		July 1, 1957	26.41	42,100
	Mar. 31, 1938	19.70	16,200		July 30, 1957	19.29	16,800
	May 24, 1938	20.70	19,000	1958	Dec. 19, 1957	18.55	13,300
	June 11, 1938	20.15	17,600		Mar. 26, 1958	19.18	15,500
					July 19, 1958	19.06	12,900
1939	Apr. 18, 1939	22.30	24,000				
				1959	May 18, 1959	14.77	7,100
1940	May 2, 1940	14.81	7,540				
				1960	Dec. 19, 1960	18.00	12,200
1941	Apr. 19, 1941	16.15	9,150				
				1961	Mar. 7, 1961	19.84	17,300
1942	June 26, 1942	18.42	13,000		May 9, 1961	23.33	25,800
1943	Dec. 28, 1942	22.27	24,000	1962	Mar. 22, 1962	19.43	15,100
	May 12, 1943	22.57	25,000				
	May 19, 1943	18.43	13,000	1963	May 19, 1963	16.86	10,600
1944	Apr. 24, 1944	18.30	12,800	1964	Mar. 11, 1964	20.02	16,600
				1965	Apr. 7, 8, 1965	17.34	10,600

a Annual peak only.

MERAMEC RIVER BASIN

7-0190. Meramec River near Eureka, Mo.

Location.--Lat 38°30'20", long 90°35'30", in SE¼ sec.32, T.44 N., R.4 E., at bridge on U. S. Highway 66, 2 miles east of Eureka and 3 miles downstream from Big River.

Drainage area.--3,788 sq mi. Slope.--3.44 ft per mi.

Gage.--Nonrecording prior to Sept. 22, 1937; recording thereafter. Prior to July 22, 1906, at site 200 ft upstream at different datum; Oct. 6, 1921, to Jan. 16, 1933, at site 200 ft upstream at datum 1.04 ft higher. Datum of present gage is 406.18 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 116,000 cfs and by slope-area measurement at 175,000 cfs.

Bankfull stage.--22 ft.

Remarks.--Base for partial-duration series, 32,000 cfs.

Peak stages and discharges								
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1904	Mar. 28, 1904	36.2	68,100	1944	Apr. 25, 1944	17.26	26,100	
	Apr. 27, 1904	28.7	48,600					
<u>1905</u>	Sept. 20, 1905	<u>29.7</u>	51,200	1945	Mar. 8, 1945	22.38	37,400	
					Apr. 2, 1945	28.98	57,100	
					Apr. 17, 1945	32.13	72,500	
1915	Aug. 22, 1915	39.2	a175,000		June 11, 1945	36.94	120,000	
<u>1916</u>	Feb. 1, 1916	36.0	a113,000	1946	Feb. 16, 1946	23.52	40,300	
1922	Apr. 19, 1922	24.45	38,600	1947	Apr. 27, 1947	31.15	66,400	
1923	Mar. 17, 1923	16.95	24,800	1948	Jan. 3, 1948	17.00	25,000	
1924	May 30, 1924	20.50	31,000	1949	Jan. 27, 1949	20.30	32,200	
1925	Dec. 22, 1924	14.60	20,100		Feb. 17, 1949	21.80	35,900	
1926	Nov. 10, 1925	17.18	24,800	1950	Jan. 6, 1950	33.01	79,700	
					Jan. 16, 1950	20.53	32,500	
May 13, 1950					21.28	34,600		
1927	Apr. 3, 1927	29.47	64,000	1951	Feb. 21, 1951	21.33	34,600	
	Apr. 11, 1927	21.54	34,400		July 15, 1951	27.08	50,700	
	Apr. 17, 1927	25.21	44,200					
	May 27, 1927	21.12	33,400					
	June 4, 1927	22.80	37,400		1952	Apr. 14, 1952	16.99	25,500
1928	Apr. 8, 9, 1928	23.80	39,800	1953	Mar. 6, 1953	15.00	21,800	
	June 11, 1928	20.78	32,700					
	June 21, 1928	21.07	33,400	1954	June 10, 1954	11.54	15,600	
1929	May 15, 1929	21.10	33,400	1955	Mar. 23, 1955	17.84	28,100	
1930	Jan. 16, 1930	24.41	42,200	1956	June 2, 1956	11.50	15,600	
1931	May 22, 1931	6.10	6,420	1957	Mar. 27, 1957	20.58	34,600	
1932	Jan. 3, 1932	8.35	9,540		Apr. 6, 1957	24.19	44,400	
					Apr. 30, 1957	21.88	38,000	
1933	Aug. 14, 1932	8.35	9,540		May 25, 1957	29.45	59,600	
					June 15, 1957	31.19	66,000	
1934	Apr. 18, 1933	21.82	35,700		July 2, 1957	35.77	99,500	
	May 17, 1933	30.72	63,400					
1934	Sept. 18, 1934	17.91	27,100	1958	Mar. 26, 1958	20.26	35,800	
					July 19, 1958	19.13	32,800	
1935	Mar. 14, 1935	30.89	62,200	1959	May 18, 1959	11.40	16,100	
	June 24, 1935	26.32	48,400					
	June 29, 1935	23.04	39,400	1960	Dec. 20, 1959	13.87	21,800	
1936	Nov. 12, 1935	13.22	17,400	1961	May 10, 1961	31.58	71,200	
1937	May 6, 1937	21.56	35,700	1962	Mar. 23, 1962	19.51	33,900	
1938	Feb. 20, 1938	25.10	45,000	1963	May 29, 1963	13.67	21,900	
	May 25, 1938	23.11	39,700					
	June 12, 1938	25.47	46,100	1964	Mar. 12, 1964	18.22	29,900	
1939	Apr. 19, 1939	26.95	61,600	1965	Apr. 8, 1965	14.73	22,600	
1940	June 29, 1940	11.41	14,800					
1941	Apr. 22, 1941	22.07	38,000					
1942	June 28, 1942	21.90	37,400					
1943	Dec. 30, 1942	31.78	69,600					
	May 13, 1943	24.29	42,800					
	May 21, 1943	27.70	52,400					

a Annual peak only.

PLATTIN CREEK BASIN

7-0191. Murphy Branch near Crystal City, Mo.

Location.--Lat 38°11'12", long 90°23'46", in NW portion of Missouri Survey No. 1995, T.40 N., R.6 E., on left bank just upstream from culvert under U.S. Highway 61, 0.8 mile north of Platin Creek crossing and 1.0 south of junction of U.S. 61 and 67, and 2.5 miles southwest of Crystal City.

Drainage area.--0.44 sq mi. Slope.--108 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed September 15, 1960, and removed April 15, 1964.

Stage-discharge relation.--Defined at 85, 320, 427, and 947 cfs by indirect measurements. Defined below 3 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 25, 1955	6.39	130				
1956	May 6, 1956	9.69	320				
1957	June 8, 1957	11.87	947				
1958	July 31, 1958	(a)	(b)				
1959	Jan. 20, 1959	6.42	125				
1960	May 18, 1960	5.44	80				
1961	May 8, 1961	7.46	165				
1962	June 6, 1962	8.60	230				
1963	Mar. 31, 1963	6.15	114				
1964	Apr. 5, 1964	5.60	90				
1965	Sept. 5, 1965	9.30	294				

a Stage below bottom of gage.

b Less than 60 cfs.

MISSISSIPPI RIVER MAIN STEM

7-0205. Mississippi River at Chester, Ill.

Location--Lat 37°54'00", long 89°49'50", in SW¼ sec.24, T.7 S., R.7 W., third principal meridian, on left bank 0.4 mile downstream from highway bridge at Chester, 8.3 miles downstream from Kaskaskia River, and at mile 109.5 above Ohio River.

Drainage area--712,600 sq mi, approximately.

Gage--Nonrecording. Datum of gage is 341.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Continually shifting, defined by frequent current-meter measurements.

Bankfull stage--27 ft.

Remarks--Records prior to July 1942 furnished by Mississippi River Commission. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin, and by many reservoirs and diversions for irrigation in Missouri River basin. Discharges prior to the 1942 water year are maximum daily discharges. Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 30, 1844	39.8	a1,350,000				
1926	Sept. 30, 1926	23.8	501,000				
1927	Apr. 27, 1927	34.4	1,060,000				
1928	June 23, 1928	28.0	626,000				
1929	Apr. 29, 1929	b33.3	878,000				
1930	June 21, 22, 1930	19.7	342,000				
1931	June 16, 1931	14.4	221,000				
1932	Dec. 1, 1931	23.3	451,000				
1933	May 18, 1933	28.9	500,000				
1934	Apr. 25, 1934	10.2	137,000				
1935	June 10, 1935	b33.4	665,000				
1936	Mar. 1, 1936	20.8	326,000				
1937	May 6, 7, 1937	24.6	422,000				
1938	May 28, 1938	27.1	540,000				
1939	Apr. 21, 1939	30.6	618,000				
1940	Apr. 21, 1940	c13.6	d193,000				
1941	Apr. 24, 1941	b26.9	d455,000				
1942	July 1, 1942	34.0	603,000				
1943	May 24, 1943	38.08	e873,000				
1944	May 2, 1944	37.4	842,000				
1945	Apr. 2, 1945	f34.4	716,000				
1946	Jan. 13, 14, 1946	27.5	502,000				
1947	July 3, 1947	b38.17	886,000				
1948	Mar. 28, 1948	32.8	668,000				
1949	Apr. 3, 4, 1949	24.7	426,000				
1950	May 15, 1950	27.6	476,000				
1951	July 22, 1951	b39.3	795,000				
1952	Apr. 30, 1952	b34.4	685,000				
1953	Apr. 5, 1953	22.2	378,000				
1954	June 7, 1954	18.8	289,000				
1955	Feb. 23, 1955	19.5	332,000				
1956	Oct. 9, 1955	14.9	221,000				
1957	May 28, 1957	25.6	426,000				
1958	July 25, 1958	29.3	510,000				
1959	June 4, 1959	23.1	361,000				
1960	Apr. 11, 1960	33.7	680,000				
1961	May 12, 1961	34.3	691,000				
1962	Mar. 26, 1962	30.6	625,000				
1963	Mar. 8, 1963	19.12	308,000				
1964	Apr. 24, 1964	b20.06	304,000				
1965	Sept. 29, 1965	29.79	544,000				

a Computed by Corps of Engineers, date approximate.

b Occurred at different time than peak discharge.

c Occurred June 15, 1940.

d Computed on basis of records for stations at St. Louis, Mo., and Thebes, Ill.

e Does not include flow bypassing gage through levee breaks upstream.

f Occurred June 14, 1945.

APPLE CREEK BASIN

7-0207. Hoehs Branch near Uniontown, Mo.

Location.--Lat 37°37'50", long 89°43'50", in SW¼SE¼ sec.20, T.34 N., R.12 E., on right downstream abutment of bridge on U.S. Highway 61, 1.2 miles north of Uniontown.

Drainage area.--1.66 sq mi. Slope.--59.4 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 352 and 1,400 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	10.37	352				
1956	May 14, 1956	12.73	1,400				
1957	May 22, 1957	11.81	900				
1958	Jan. 21, 1958	12.75	1,400				
1959	Aug. 17, 1959	12.34	1,180				
1960	Aug. 20, 1960	10.82	450				
1961	June 15, 1961	12.11	1,000				
1962	Jan. 22, 1962	10.57	420				
1963		(a)	(b)				
1964	Aug. 27, 1964	12.55	1,300				
1965	July 2, 1965	12.45	1,200				

a Stage below bottom of gage (gage height 8.25).

b Less than 50 cfs.

HEADWATER DIVERSION CHANNEL BASIN

(CASTOR AND WHITEWATER RIVERS)

7-0210. Castor River at Zalma, Mo.

Location.--Lat 37°08'45", long 90°04'30", in SE¼ sec.29, T.29 N., R.9 E., at bridge on State Highway 51 in Zalma, 2½ miles downstream from Perkins Creek.

Drainage area.--423 sq mi. Slope.--8.92 ft per mi.

Gage.--Nonrecording prior to June 9, 1953; recording thereafter. Prior to Oct. 1, 1925, at site 500 ft upstream at datum 49.82 ft lower; Oct. 1, 1925, to Nov. 12, 1930, at site 500 ft upstream at datum 0.18 ft higher. Datum of present gage is 350.38 ft above mean sea level, datum of 1929. Since Dec. 18, 1949, auxiliary staff gage 6 miles downstream. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs. Slope used as a factor since 1949.

Bankfull stage.--19 ft.

Remarks.--Peaks for period prior to Sept. 12, 1921, computed from plotted Little River Drainage District gage readings. Work on Headwater Diversion Channel completed about March 1919. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	May 17, 1920	26.1	17,400	1945	Feb. 27, 1945	25.85	22,600
1921	Apr. 27, 1921	22.4	7,660		Mar. 7, 1945	25.00	17,350
1922	Nov. 20, 1921	24.0	10,600		Mar. 20, 1945	22.80	8,150
	Apr. 1, 1922	23.6	9,720		Mar. 26, 1945	22.95	8,550
1923	Feb. 2, 1923	24.0	10,600		Mar. 31, 1945	24.30	13,550
1924	May 30, 1924	24.6	3,160		Apr. 15, 1945	25.20	18,550
1925	June 14, 1925	23.3	2,670		June 9, 1945	26.04	24,100
1926	Feb. 26, 1926	20.3	5,920		June 18, 1945	23.40	9,600
1927	Apr. 1, 1927	24.0	10,600	1946	Feb. 14, 1946	24.30	13,550
	Apr. 16, 1927	24.6	12,100		May 2, 1946	23.98	12,050
	June 2, 1927	23.6	9,720		May 17, 1946	24.5	14,600
1928	Dec. 14, 1927	26.5	19,400	1947	Apr. 26, 1947	18.8	4,990
	June 14, 1928	23.6	9,720	1948	Jan. 1, 1948	27.8	38,400
	June 21, 1928	24.9	13,000	1949	Jan. 19, 1949	22.6	8,530
1929	June 14, 1929	22.0	7,250		Jan. 24, 1949	28.1	40,100
1930	Jan. 14, 1930	23.7	9,940		Mar. 27, 1949	24.0	13,100
1931	Mar. 8, 1931	16.10	3,800	1950	Jan. 4, 1950	26.4	27,400
1932	Jan. 17, 1932	20.22	5,920		Feb. 13, 1950	26.6	28,800
1933	Dec. 25, 1932	22.82	8,180	1951	Apr. 4, 1950	24.8	17,100
	Jan. 23, 1933	23.63	9,720	1952	Feb. 21, 1951	23.20	9,950
	Apr. 16, 1933	24.30	11,400		Nov. 25, 1951	23.50	11,000
	May 12, 1933	23.45	9,300		Mar. 12, 1952	23.50	11,000
	May 14, 1933	25.86	16,600	1953	Mar. 4, 1953	18.3	4,900
1934	Mar. 27, 1934	12.78	2,560	1954	May 3, 1954	20.44	6,290
1935	Mar. 11, 1935	28.20	40,000	1955	Mar. 21, 1955	25.10	18,800
1936	Nov. 16, 1935	9.64	1,610	1956	Feb. 19, 1956	19.79	5,490
1937	Jan. 14, 1937	27.67	40,400	1957	Apr. 4, 1957	26.53	28,100
1938	Feb. 19, 1938	23.72	14,900		May 20, 1957	23.30	10,300
1939	Mar. 6, 1939	23.35	10,950		May 23, 1957	26.27	26,700
	Apr. 17, 1939	24.17	14,600		July 1, 1957	26.07	25,300
1940	Apr. 20, 1940	22.10	7,730	1958	Nov. 19, 1957	23.17	9,950
1941	Jan. 2, 1941	12.3	2,480		Dec. 20, 1957	23.78	12,200
1942	Apr. 9, 1942	23.20	10,200		Mar. 25, 1958	24.90	17,600
1943	Dec. 28, 1942	22.45	8,150	1959	Nov. 18, 1959	24.35	15,000
	May 11, 1943	26.60	31,600	1960	May 20, 1960	19.26	5,110
1944	Apr. 24, 1944	23.60	11,700	1961	May 8, 1961	25.47	21,000
				1962	Jan. 23, 1962	23.11	9,660
					Mar. 22, 1962	23.00	9,400
				1963	Mar. 17, 1963	20.11	5,560
				1964	Mar. 9, 1964	26.95	35,000
				1965	Sept. 23, 1965	21.52	7,050

HEADWATER DIVERSION CHANNEL BASIN

7-0212. Sunnybrook Creek at Lutesville, Mo.

Location--Lat 37°17'05", long 89°58'55", in NW¼SE¼ sec.7, T.30 N., R.10 E., on left bank just upstream from bridge on State Highway 51, one half mile south of city limits of Lutesville.

Drainage area--0.52 sq mi. Slope--196 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined at 221 and 440 cfs by indirect measurements.

Remarks--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 6, 1955	2.59	260				
1956	Feb. 2, 1956	2.29	195				
1957	June 30, 1957	3.07	440				
1958	Dec. 19, 1957	2.92	400				
1959		(a)	(b)				
1960	Oct. 13, 1959	2.20	180				
1961	May 7, 1961	2.69	300				
1962	Feb. 26, 1962	2.54	250				
1963	Mar. 4, 1963	2.31	200				
1964	Mar. 9, 1964	2.32	200				
1965	July 2, 1965	2.96	400				

a Stage below bottom of gage.

b Less than 140 cfs.

MISSISSIPPI RIVER MAIN STEM

7-0220. Mississippi River at Thebes, Ill.
(Published as "at Cape Girardeau, Mo." prior to 1941)

Location--Lat 37°13'00", long 89°27'50", in NW¼ sec.17, T.15 S., R.3 W., on downstream side of railroad bridge at Thebes, 5.0 miles downstream from headwater diversion channel and at mile 43.7 above Ohio River.

Drainage area--717,200 sq mi, approximately.

Gage--Nonrecording prior to Dec. 21, 1934, and Apr. 5, 1941, to Sept. 30, 1943; recording Dec. 22, 1934, to Apr. 4, 1941, and since Oct. 1, 1943. Prior to Apr. 5, 1941, at site 8.2 miles upstream at datum 304.65 ft higher than present gage; Apr. 5, 1941, to Sept. 30, 1944, at present site and at datum 300.00 ft higher than present datum. Gage heights given herein beginning with 1941 converted to present datum which is at mean sea level, datum of 1929. Since Oct. 1, 1943, former gage at Cape Girardeau used as auxiliary gage; previously, various auxiliary gages used.

Stage-discharge relation--Affected by backwater from Ohio River. Fall between auxiliary and reference gage used as a factor in computing discharge. Frequent current-meter measurements necessary to define relationship.

Bankfull stage--333 ft.

Remarks--Natural flow of stream affected by many reservoirs and navigation dams in Upper Mississippi River basin, and by many reservoirs and diversions for irrigation in Missouri River basin. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	July 4, 1844	a 42.53	a 1,375,000				
1933	May 18, 1933	b 34.4	525,000				
1934	Apr. 27, 1934	14.4	140,000				
1935	June 10, 1935	b 36.26	623,000				
1936	Mar. 2, 1936	25.19	318,000				
1937	May 7, 1937	30.36	420,000				
1938	May 28, 1938	31.0	c 552,000				
1939	Apr. 21, 1939	35.8	c 637,000				
1940	Apr. 21, 1940	19.64	199,000				
1941	Apr. 24, 1941	329.11	469,000				
1942	June 30, 1942	b 335.65	615,000				
1943	May 27, 1943	340.26	893,000				
1944	May 6, 1944	339.05	812,000				
1945	Apr. 2, 1945	b 337.90	702,000				
1946	Jan. 14, 1946	333.68	506,000				
1947	July 6, 1947	b 340.08	837,000				
1948	Mar. 28, 1948	b 336.97	676,000				
1949	Apr. 4, 1949	b 331.35	447,000				
1950	May 15, 1950	b 332.29	491,000				
1951	July 24, 1951	b 339.91	805,000				
1952	May 2, 1952	337.36	685,000				
1953	Apr. 6, 1953	326.66	382,000				
1954	June 7, 1954	322.25	292,000				
1955	Feb. 25, 1955	324.39	329,000				
1956	Oct. 9, 1955	318.48	220,000				
1957	May 23, 1957	b 331.62	463,000				
1958	July 25, 1958	b 333.87	534,000				
1959	June 5, 1959	326.11	364,000				
1960	Apr. 11, 1960	337.19	685,000				
1961	May 13, 1961	338.74	739,000				
1962	Mar. 27, 1962	336.28	628,000				
1963	Mar. 9, 1963	327.16	314,000				
1964	Apr. 9, 1964	324.62	313,000				
1965	Sept. 29, 1965	b 334.36	542,000				

a Computed by Corps of Engineers.

b Occurred at different time than peak discharge.

c Computed on basis of records at Chester, Ill.

ST. FRANCIS RIVER BASIN

7-0330. Wolf Creek near Farmington, Mo.

Location.--Lat 37°45'45", long 90°23'15", in SE¼ sec.5, T.35 N., R.6 E., on downstream side of bridge on U.S. Highways 61 and 67, 1¼ miles below mouth of Sand Creek, and 1½ miles southeast of Farmington.

Drainage area.--40.3 sq mi. Slope.--19.9 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 9,870 cfs by indirect measurement and below 3,400 cfs by current-meter measurements.

Bankfull stage.--13 ft.

Remarks.--Only annual peaks are shown. Operated as a non-recording gaging station from Feb. 9 to Sept. 30, 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	15.44	3,500				
1956	May 12, 1956	11.84	1,200				
1957	June 30, 1957	18.02	9,870				
1958	Dec. 17, 1957	14.67	2,700				
1959	Apr. 19, 1959	14.57	2,500				
1960	Dec. 17, 1959	14.72	2,600				
1961	Mar. 5, 1961	15.62	3,700				
1962	Jan. 22, 1962	15.29	3,400				
1963	May 18, 1963	14.99	3,000				
1964	May 11, 1964	13.72	2,100				
1965	Sept. 22, 1965	15.35	3,500				

ST. FRANCIS RIVER BASIN

7-0355. Barnes Creek near Fredericktown, Mo.

Location--Lat 37°34'20", long 90°23'00", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.4, T.33 N., R.6 E., on right downstream abutment of bridge on State Highway 72, 1.1 miles upstream from Little St. Francis River and 5.3 miles west of Fredericktown.

Drainage area--4.03 sq mi. Slope--11 $\frac{1}{4}$ ft per mi.

Gage--Recording.

Stage-discharge relation--Defined at 4,840 cfs by indirect measurement. Defined below 754 cfs by current-meter measurement.

Remarks--Base for partial-duration series 200 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Nov. 15, 1955	7.19	900				
	Feb. 1, 1956	5.36	202				
	Feb. 17, 1956	5.78	309				
	May 15, 1956	5.78	309				
1957	Feb. 26, 1956	5.37	204				
	Mar. 24, 1956	6.38	520				
	Apr. 3, 1956	7.19	930				
	May 18, 1956	7.95	1,600				
	May 21, 1956	9.62	5,550				
	May 25, 1956	6.25	428				
	June 1, 1956	8.37	2,370				
	June 30, 1956	9.53	5,380				
1958	Nov. 18, 1957	5.50	235				
	Dec. 17, 1957	6.36	500				
	Feb. 27, 1958	5.43	218				
	Mar. 23, 1958	5.63	268				
	June 10, 1958	8.08	1,950				
	June 25, 1958	5.59	337				
	July 18, 1958	8.70	3,050				
	Aug. 1, 1958	6.30	580				
1959	Sept. 10, 1958	6.09	505				
	Nov. 16, 1958	6.82	810				
	Jan. 21, 1959	5.05	210				
1960	Apr. 19, 1959	5.28	255				
	June 13, 1960	5.85	418				
1961	May 8, 1961	6.07	488				
1962	Jan. 21, 1962	7.35	1,140				
1963	Mar. 30, 1963	5.44	295				
1964	Mar. 9, 1964	6.37	608				
1965	Sept. 22, 1965	9.20	4,250				

ST. FRANCIS RIVER BASIN

7-0375. St. Francis River near Patterson, Mo.

Location.--Lat 37°11'40", long 90°30'10", in NE¼ sec.16, T.29 N., R.5 E., at bridge on State Highway 34, 1 mile upstream from Clark Creek and 3 miles east of Patterson.

Drainage area.--956 sq mi. Slope.--7.24 ft per mi.

Gage.--Nonrecording prior to Apr. 12, 1939, and Sept. 6, 1956, to Sept. 26, 1958. Recording Apr. 13, 1939, to Sept. 5, 1956, and since Sept. 27, 1958. Prior to Oct. 1, 1938, at datum 2.00 ft higher. Datum of present gage is 370.45 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs; shifts in relation occur.

Bankfull stage.--16 ft.

Remarks.--Occasional backwater from Wappapello Reservoir since Apr. 1, 1941. Base for partial-duration series, 21,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	33.8	a100,000	1939	Mar. 5, 1939	21.90	34,600
					Apr. 6, 1939	20.80	30,700
1921	-	22.0	a36,600		Apr. 17, 1939	21.48	33,200
1922	Nov. 19, 1921	22.0	36,600	1940	Apr. 19, 1940	17.92	21,700
	Mar. 31, 1922	18.95	26,700				
1923	Feb. 1, 1923	21.20	34,000	1941	Jan. 2, 1941	14.40	12,600
	Mar. 16, 1923	21.38	34,600	1942	Nov. 1, 1941	20.40	25,800
	May 16, 1923	19.40	28,000				
1924	May 29, 1924	15.50	16,600	1943	Dec. 28, 1942	22.87	33,300
					May 11, 1943	29.70	68,100
1925	Apr. 18, 1925	10.85	6,880	1944	Apr. 23, 1944	19.05	20,600
1926	Nov. 8, 1925	22.50	38,200	1945	Feb. 26, 1945	24.60	(b)
	Feb. 25, 1926	17.90	23,300		Mar. 6, 1945	21.79	(b)
1927	Apr. 1, 1927	26.70	50,000		Mar. 20, 1945	20.10	(b)
	Apr. 14, 1927	27.00	51,000		Mar. 26, 1945	21.17	(b)
	May 25, 1927	21.60	33,000		Mar. 31, 1945	27.26	(b)
	June 1, 1927	20.60	30,200		Apr. 14, 1945	31.00	(b)
					June 9, 1945	29.20	a64,900
1928	Dec. 14, 1927	27.20	51,700	1946	Oct. 22, 1945	22.30	31,100
	Apr. 6, 1928	21.98	34,300		Feb. 14, 1946	25.00	42,300
	June 9, 1928	22.25	34,900		May 1, 1946	23.80	37,000
	June 13, 1928	22.80	36,900		May 16, 1946	23.40	35,300
	June 21, 1928	25.60	46,100		May 25, 1946	22.80	32,900
1929	Jan. 25, 1929	20.80	30,500	1947	Apr. 25, 1947	23.30	34,900
	Apr. 9, 1929	19.30	26,000				
	May 6, 1929	20.80	30,500	1948	Jan. 1, 1948	24.86	41,800
	May 13, 1929	21.60	33,000				
1930	Jan. 13, 1930	21.70	33,200	1949	Jan. 25, 1949	28.20	59,000
					Feb. 15, 1949	20.20	24,100
1931	Mar. 7, 1931	15.52	15,300	1950	Oct. 22, 1949	21.76	29,300
1932	Dec. 30, 1931	15.86	16,300		Jan. 4, 1950	26.37	53,400
1933	Dec. 24, 1932	19.75	27,500		Jan. 14, 1950	18.28	21,300
	Jan. 22, 1933	17.80	21,500		Feb. 13, 1950	24.00	41,700
	Apr. 16, 1933	25.07	44,400		Apr. 3, 1950	19.25	23,800
	May 14, 1933	28.80	57,400		May 10, 1950	23.80	40,900
1934	Apr. 7, 1934	13.2	10,200	1951	Feb. 7, 1951	19.40	24,400
					Feb. 21, 1951	19.46	24,800
1935	Mar. 11, 1935	30.70	79,200	1952	Nov. 23, 1951	19.29	24,100
	May 5, 1935	20.70	30,200		Mar. 11, 1952	19.20	23,800
	May 20, 1935	21.40	32,400	1953	Mar. 4, 1953	17.87	20,300
	June 21, 1935	21.50	32,700				
1936	Nov. 10, 1935	12.75	9,600	1954	May 2, 1954	20.1	26,700
					June 8, 1954	19.85	25,700
1937	Nov. 3, 1936	19.45	26,300	1955	Mar. 21, 1955	21.3	30,900
	Dec. 31, 1936	19.50	26,600				
	Jan. 8, 1937	20.00	28,100	1956	May 16, 1956	16.56	17,200
	Jan. 15, 1937	26.50	55,200				
1938	Feb. 18, 1938	22.65	37,300	1957	Apr. 4, 1957	27.05	57,500
	Mar. 29, 1938	18.70	24,100		May 23, 1957	23.00	36,500
	Mar. 31, 1938	20.00	28,100		June 30, 1957	28.50	66,500
1939	Jan. 30, 1939	19.01	25,000	1958	Dec. 18, 1957	20.00	25,000
	Feb. 28, 1939	17.97	22,000		Mar. 24, 1958	22.14	36,500
					July 19, 1958	18.80	23,700

ST. FRANCIS RIVER BASIN

Peak stages and discharges of St. Francis River near Patterson, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Nov. 17, 1958	18.55	23,100	1960	Dec. 18, 1959	18.15	21,800
	Jan. 21, 1959	18.15	21,800				
1961	Mar. 6, 1961	19.60	26,600	1962	Jan. 22, 1962	22.8	39,600
	May 7, 1961	22.10	36,500		Mar. 21, 1962	22.2	37,400
1963	May 18, 1963	16.35	16,600	1964	Mar. 10, 1964	25.30	47,800
					Apr. 6, 1964	18.90	21,500
1965	Sept. 22, 1965	23.40	38,300				

a Annual peak only.

b Peak discharge indeterminate, affected by backwater from Wappapello Reservoir.

ST. FRANCIS RIVER BASIN

7-0377. Clark Creek near Piedmont, Mo.

Location.-- Lat 37°11'10", long 90°37'45", in SE¼NE¼ sec.17, T.29 N., R.4 E., at bridge on State Highway 34, 3.5 miles northeast of Piedmont, Mo.

Drainage area.--4.39 sq mi. Slope.--63.9 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 727 and 1,350 cfs by indirect measurements, and below 360 cfs by current-meter measurements.

Remarks.--Base for partial-duration series 250 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Apr. 3, 1957	4.78	762	1958	Mar. 23, 1958	3.52	288
	May 18, 1957	4.76	739		May 2, 1958	4.95	831
	May 21, 1957	4.04	448		June 11, 1958	4.43	607
	May 22, 1957	6.10	1,400				
	May 25, 1957	4.64	694				
	June 9, 1957	3.81	371				
	June 30, 1957	4.36	566				
	July 28, 1957	5.10	902				
1959	Nov. 16, 1958	5.82	1,250	1960	May 19, 1960	4.38	586
1961	May 7, 1961	5.22	950	1962	Feb. 26, 1962	4.27	527
1963	May 26, 1963	3.35	235	1964	Mar. 8, 1964	5.45	727
1965	Sept. 22, 1965	6.25	1,350				

ST. FRANCIS RIVER BASIN

7-0380. Clark Creek at Patterson, Mo.

Location--Lat 37°11'25", long 90°32'20", in NE¼ sec.18, T.29 N., R.5 E., at bridge on State Highway 34, 1 3/4 miles above Rings Creek and 3 miles above mouth, 0.6 mile east of Patterson.

Drainage area--37.5 sq mi. Slope--29.4 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined at 11,200 cfs by indirect measurement. Define below 910 cfs by current-meter measurements.

Remarks--Only annual peaks are shown. Operated as a conrecording station Feb. 18 to Sept. 30, 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	12.53	11,200				
1956	May 15, 1956	8.36	2,600				
1957	May 21, 1957	11.49	8,000				
1958	May 2, 1958	8.94	3,300				
1959	Nov. 11, 1958	10.70	6,500				
1960	May 19, 1960	9.10	3,500				
1961	May 7, 1961	10.92	7,000				
1962	Jan. 22, 1962	9.84	5,000				
1963		(a)	(b)				
1964	Mar. 9, 1964	11.34	8,000				
1965	Sept. 22, 1965	11.79	9,000				

a Stage below bottom of gage (gage height 8.3).

b. Less than 260 cfs.

ST. FRANCIS RIVER BASIN

7-0395. St. Francis River at Wappapello, Mo.

Location.--Lat 36°55'41", long 90°15'55", in NW¼SE¼ sec.2, T.26 N., R.7 E., on right bank at downstream side of highway bridge, 0.5 mile southeast of Wappapello and 1.25 miles downstream from Wappapello Dam.

Drainage area.--1,311 sq mi. Slope.--5.88 ft per mi.

Gage.--Nonrecording prior to Oct. 14, 1940; recording thereafter. Datum of gage is 325.15 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--22 ft.

Remarks.--Records furnished by Corps of Engineers. Flow regulated by Wappapello Reservoir (capacity at spillway crest, 625,000 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Jan. 5, 1941	10.76	3,320				
1942	Nov. 2, 1941	19.65	7,640				
1943	Dec. 30, 1942	21.81	9,270				
1944	Mar. 3, 1944	11.21	3,320				
1945	Apr. 16, 1945	25.60	22,300				
1946	Feb. 15-17, May 18	a22.60	10,600				
1947	Apr. 26, 1947	b21.98	10,000				
1948	Jan. 3, 1948	21.35	10,000				
1949	Feb. 4, 1949	22.46	10,900				
1950	Jan. 18, 1950	22.42	10,500				
1951	Feb. 23, 1951	21.75	9,990				
1952	Nov. 26, 1951	21.49	9,410				
1953	Mar. 6, 1953	17.22	6,060				
1954	June 11, 1954	18.67	7,190				
1955	Mar. 22, 1955	21.04	9,850				
1956	Feb. 19, 1956	17.00	6,130				
1957	Apr. 11, 1957	22.15	10,300				
1958	Mar. 27, 1958	c21.37	10,200				
1959	Nov. 19, 1958	20.11	8,300				
1960	Dec. 19, 1959	18.50	7,410				
1961	May 8, 1961	21.92	10,350				
1962	Mar. 22, 1962	20.54	9,030				
1963	May 29, 1963	16.06	6,270				
1964	Mar. 10, 1964	d22.11	10,400				
1965	Sept. 23, 1965	e18.80	7,950				

a Occurred Feb. 16, 1946.

b Occurred on following day.

c Occurred Mar. 30, 1958

d Occurred Mar. 16, 1964

e Occurred Sept. 26, 1965

ST. FRANCIS RIVER BASIN

7-0401.1. Delaware Creek Tributary near Bloomfield, Mo.

Location.--Lat 36°51'32", long 89°56'10", in NW 1/4 sec.35, T.26 N., R.10 E., on right downstream wingwall of double box culvert under State Highway 25, 1.8 miles southwest of Bloomfield.

Drainage area.--0.38 sq mi. Slope.--85.5 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 455, 628, and 651 cfs by indirect measurements. Defined below 77 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 27, 1955	12.04	380				
1956	Aug. 31, 1956	12.31	455				
1957	June 29, 1957	12.87	628				
1958	Mar. 24, 1958	10.76	80				
1959		(a)	(b)				
1960	June 27, 1960	12.21	430				
1961	June 14, 1961	12.57	540				
1962	Feb. 26, 1962	12.84	620				
1963	Sept.13, 1963	c 13.55	c650				
1964	Mar. 9, 1964	c 12.87	c470				
1965	Sept.11, 1965	13.58	650				

a Stage below bottom of gage.

b Less than 300 cfs.

c Revised.

ST. FRANCIS RIVER BASIN

7-0410. Little River ditch 81 near Kennett, Mo.

Location--Lat 36°14'10", long 89°58'55", in NE¼ sec.4, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area--111 sq mi. Slope--1.0 ft per mi.

Gage--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage--10 ft.

Remarks--Records not comparable with those of station at Kirk, 1921-26, because of additional ditch construction. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 21, 1927	15.11	a2,760				
1928	June 30, 1928	13.06	2,710				
1929	Feb. 27, 1929	10.88	2,000				
1930	Jan. 10, 14, 1930	11.38	1,770				
1931	Mar. 8, 1931	4.48	303				
1932	Jan. 18, 1932	9.80	1,370				
1933	Jan. 1, 1933	10.34	1,380				
1934	Mar. 27, 1934	10.28	1,490				
1935	Mar. 15, 1935	12.11	2,610				
1936	Apr. 7, 1936	5.27	386				
1937	Jan. 26, 1937	12.53	2,310				
1938	Feb. 18, 1938	11.46	1,960				
1939	Apr. 18, 1939	10.36	1,600				
1940	Apr. 20, 1940	7.10	837				
1941	Jan. 25, 1941	4.57	330				
1942	Apr. 9, 1942	10.1	1,850				
1943	May 12, 1943	9.3	1,380				
1944	Apr. 13, 1944	10.36	1,950				
1945	June 18, 1945	12.18	2,620				
1946	Jan. 9, 1946	10.15	1,890				
1947	Apr. 12, 1947	6.3	805				
1948	Mar. 27, 1948	8.5	1,400				
1949	Jan. 28, 1949	11.26	2,300				
1950	Feb. 16, 1950	11.90	2,440				
1951	Feb. 21, 1951	11.21	2,200				
1952	Jan. 5, 1952	11.44	2,230				
1953	Mar. 18, 1953	8.38	1,310				
1954	Jan. 21, 1954	b 5.45	548				
1955	Mar. 21, 1955	9.2	1,550				
1956	Feb. 18, 1956	10.84	2,060				
1957	July 2, 1957	11.50	2,300				
1958	Nov. 19, 1957	11.86	2,440				
1959	Feb. 14, 1959	9.00	1,490				
1960	May 21, 1960	8.37	1,310				
1961	May 7, 1961	12.3	2,580				
1962	Feb. 28, 1962	12.46	2,470				
1963	Mar. 5, 1963	8.76	1,430				
1964	Mar. 10, 1964	12.45	2,610				
1965	Feb. 10, 1965	11.00	2,130				

a Includes some flow from levee break on St. Francis River.

b Observed.

ST. FRANCIS RIVER BASIN

7-0420. Little River ditch 1 near Kennett, Mo.

Location.--Lat 36°14'10", long 89°58'50", in NE¼ sec.4, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--235 sq mi. Slope.--1.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements; large shifts occur frequently.

Bankfull stage.--13 ft.

Remarks.--Records not comparable with those of station at Kirk, 1921-26, because of additional ditch construction. A spillway 6.3 miles upstream diverted water at high stages from ditches 66, 66-A, and 251 to ditch 1. This spillway was washed out and closed April 1951. Crests have been adjusted where necessary for spillway diversion with data supplied by the Little River Drainage District. Ditch 1 near Kennett has no connection with ditch 1 near Morehouse. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 25, 1927	16.56	a7,520				
1928	June 24, 1928	10.34	2,990				
1929	Feb. 27, 1929	11.63	4,010				
1930	Jan. 15, 1930	13.24	5,040				
1931	Mar. 9, 1931	5.05	545				
1932	Jan. 18, 1932	10.95	3,510				
1933	May 16, 1933	11.16	3,040				
1934	Mar. 27, 1934	12.37	2,810				
1935	Mar. 17, 1935	16.22	4,800				
1936	Apr. 7, 1936	8.32	1,180				
1937	Jan. 25, 1937	16.80	7,260				
1938	Feb. 19, 1938	12.65	3,940				
1939	Apr. 18, 1939	12.22	b3,700				
1940	Apr. 21, 1940	7.08	2,310				
1941	Jan. 25, 1941	3.7	582				
1942	Apr. 10, 1942	10.8	4,080				
1943	May 12, 1943	11.6	3,550				
1944	Apr. 14, 1944	12.8	5,010				
1945	June 15, 1945	16.41	b6,730				
1946	Jan. 10, 1946	12.26	b4,460				
1947	Apr. 12, 1947	7.4	2,250				
1948	Mar. 27, 1948	11.10	4,130				
1949	Feb. 16-18, 1949	15.68	b5,740				
1950	Jan. 14, 1950	16.57	b7,360				
1951	Jan. 16, 1951	14.60	b5,840				
1952	Jan. 5, 1952	14.50	5,900				
1953	Mar. 19, 1953	9.70	3,020				
1954	Jan. 21, 1954	7.12	1,860				
1955	Mar. 21, 1955	11.1	3,840				
1956	Feb. 18, 1956	11.97	4,330				
1957	May 25, 1957	14.77	5,200				
1958	Mar. 25, 1958	16.65	6,250				
1959	Feb. 15, 1959	11.80	3,720				
1960	May 21, 1960	11.2	3,630				
1961	May 7, 1961	14.2	5,690				
1962	Feb. 28, 1962	13.00	4,880				
1963	Mar. 5, 1963	9.30	2,830				
1964	Mar. 11, 1964	14.39	6,200				
1965	Feb. 12, 1965	12.06	4,820				

a Includes some inflow from levee breaks on St. Francis River.

b Adjusted for inflow from ditches 66, 66-A, and 251.

ST. FRANCIS RIVER BASIN

7-0425. Little River ditch 251 near Lilbourn, Mo.

Location.--Lat 36°33'20", long 89°40'10", on line between secs.8 and 17, T.22 N., R.13 E., at bridge on U. S. Highway 62, 3.7 miles southwest of Lilbourn and 4 miles northwest of Marston.

Drainage area.--235 sq mi. Slope.--2.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 263.46 ft above mean sea level, datum of 1929 (levels by State Highway Department).

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--14 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1945	15.6	3,200				
1946	May 27, 1946	13.35	2,500				
1947	Apr. 11, 1947	9.10	1,300				
1948	Mar. 27, 1948	12.0	2,100				
1949	Jan. 28, 1949	14.88	3,120				
1950	Feb. 15, 1950	15.16	3,210				
1951	Feb. 21, 1951	13.55	2,700				
1952	Jan. 4, 1952	13.37	2,780				
1953	Mar. 17, 1953	10.6	1,950				
1954	Jan. 20, 1954	7.20	994				
1955	Mar. 21, 1955	11.6	2,240				
1956	Feb. 18, 1956	12.06	2,390				
1957	May 23, 1957	14.15	2,970				
1958	Nov. 18, 19, 1957	14.72	3,150				
1959	Jan. 21, 1959	10.80	1,890				
1960	May 20, 1960	10.00	1,660				
1961	May 9, 1961	13.90	2,930				
1962	Feb. 24, 1962	12.62	2,540				
1963	Mar. 5, 1963	11.50	2,100				
1964	Mar. 10, 1964	15.00	3,530				
1965	Feb. 12, 1965	13.30	2,660				

ST. FRANCIS RIVER BASIN

7-0430. Castor River at Aquilla, Mo.

Location.--Lat 36°57'10", long 89°54'25", in NE¼SE¼ sec.25, T.27.N., R.10 E., at bridge on State Highway 25, half a mile north of Aquilla and 4 miles north of Bloomfield.

Drainage area.--175 sq mi. Slope.--0.80 ft per mi.

Gage.--Nonrecording. Datum of gage is 317.11 ft above mean sea level (levels by State Highway Department).

Stage-discharge relation.--Defined by current-meter measurements; large shifts in relation occur frequently.

Bankfull stage.--13 ft.

Remarks.--Entire flow from headwaters of Castor River is diverted 22 miles above station to Headwater diversion channel. See Castor River at Zalma for records of flow above diversion. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1, 1945	14.2	3,600				
1946	May 3, 1946	11.02	2,000				
1947	Apr. 11, 1947	9.65	1,560				
1948	Jan. 1, 1948	10.95	2,220				
1949	Jan. 25, 1949	12.75	3,000				
1950	Jan. 4, 1950	13.45	3,430				
1951	Jan. 15, 1951	11.56	1,760				
1952	Mar. 11, 1952	12.20	1,960				
1953	Mar. 22, 1953	10.69	1,500				
1954	May 3, 1954	8.0	810				
1955	Mar. 22, 1955	11.46	1,730				
1956	Feb. 18, 1956	10.97	1,580				
1957	May 23, 1957	14.00	4,100				
1958	Mar. 24, 1958	13.25	2,980				
1959	Jan. 21, 1959	10.40	1,300				
1960	Mar. 21, 1960	9.40	1,010				
1961	May 7, 1961	14.43	4,700				
1962	Feb. 27, 1962	13.22	2,980				
1963	Mar. 17, 1963	10.93	1,470				
1964	Mar. 9, 1964	15.7	5,900				
1965	Apr. 4, 1965	11.92	2,160				

ST. FRANCIS RIVER BASIN

7-0435. Little River ditch 1 near Morehouse, Mo.

Location.--Lat 36°50'05", long 89°43'50", in NW¼SE¼ sec.2, T.25 N., R.12 E., at bridge on U. S. Highway 60, 1½ miles downstream from Little River ditch 39 and 2 miles west of Morehouse.

Drainage area.--450 sq mi. Slope.--2.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 280.76 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; large shift in relation occurred during summer of 1947 due to channel enlargement.

Bankfull stage.--13 ft.

Remarks.--This ditch has no connection with ditch 1 near Kennett. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1945	19.85	5,830				
1946	May 3, 1946	17.2	4,600				
1947	Apr. 12, 1947	13.92	3,230				
1948	Jan. 2, 1948	13.6	4,760				
1949	Jan. 25, 1949	15.35	6,270				
1950	Jan.13,16, 1950	16.30	6,920				
1951	Jan. 15, 1951	14.60	5,570				
1952	Mar. 11, 1952	16.50	7,020				
1953	Mar. 23, 1953	13.15	4,540				
1954	May 3, 1954	7.60	1,300				
1955	Mar. 21, 1955	15.6	6,170				
1956	Feb. 18, 1956	14.27	5,340				
1957	May 26, 1957	16.35	6,250				
1958	Mar. 25, 1958	18.26	7,660				
1959	Jan. 21, 1959	11.60	3,320				
1960	Mar. 21, 1960	9.30	2,130				
1961	May 10, 1961	19.35	8,250				
1962	Feb. 28, 1962	18.55	7,180				
1963	Mar. 17, 1963	14.80	4,480				
1964	Mar. 11, 1964	19.81	6,940				
1965	Feb. 12, 1965	15.80	5,120				

ST. FRANCIS RIVER BASIN

7-0440. Little River ditch 251 near Kennett, Mo.
(Includes records for ditches 66 and 66-A published separately in
annual water-supply papers)

Location.--Lat 36°14'10", long 89°58'40", in NW¼ sec.3, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--883 sq mi, including that of Little River ditches 66 and 66-A. Slope.--1.0 ft per mi.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--15 ft.

Remarks.--Ditch 251 completed after November 1926. At high stages a spillway 6.3 miles upstream diverted water from ditches 66, 66-A, and 251 into ditch 1. This spillway was washed out and closed April 1951. Crests have been corrected where necessary for spillway diversion with data supplied by the Little River Drainage District. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 25, 1927	17.67	12,500				
1928	June 24, 1928	14.95	9,040				
1929	Feb. 28, 1929	15.37	9,500				
1930	Jan. 14, 15, 1930	16.41	11,000				
1931	Mar. 9, 1931	10.12	4,110				
1932	Jan. 18, 1932	14.50	8,250				
1933	May 16, 1933	15.18	8,190				
1934	Mar. 28, 1934	13.66	6,260				
1935	Mar. 16, 1935	16.40	8,960				
1936	Apr. 8, 1936	11.28	4,190				
1937	Jan. 25, 1937	18.20	12,700				
1938	Feb. 20, 1938	15.76	9,280				
1939	Mar. 7, 1939	15.59	a9,130				
1940	Apr. 21, 1940	13.35	6,980				
1941	Jan. 26, 1941	7.75	2,240				
1942	Apr. 10, 1942	15.3	8,480				
1943	May 14, 1943	14.9	6,830				
1944	Apr. 13, 1944	15.6	8,470				
1945	June 13, 1945	17.71	a11,000				
1946	Jan. 11, 1946	17.0	a10,200				
1947	Apr. 12, 1947	13.7	6,110				
1948	Mar. 28, 1946	15.36	a7,900				
1949	Jan. 28, 1949	18.75	a12,700				
1950	Jan. 16, 1950	18.17	a11,700				
1951	Feb. 22, 1951	18.80	a12,100				
1952	Jan. 6, 1952	19.60	11,000				
1953	Mar. 24, 1953	13.07	4,990				
1954	June 11, 1954	9.10	2,500				
1955	Mar. 23, 1955	17.1	8,350				
1956	Feb. 19, 1956	17.00	8,290				
1957	May 26, 1957	b21.70	11,700				
1958	Nov. 20, 1957	21.18	13,100				
1959	Jan. 22, 1959	15.82	6,820				
1960	May 21, 1960	12.85	4,400				
1961	May 9, 1961	20.40	13,000				
1962	Mar. 1, 1962	20.10	12,200				
1963	Mar. 6, 1963	15.90	6,900				
1964	Mar. 11, 1964	21.80	13,400				
1965	Feb. 13, 1965	15.44	11,400				

a Corrected for diversion into ditch 1.

b Occurred May 24, 1957.

ST. FRANCIS RIVER BASIN

7-0460. Little River ditch 259 near Kennett, Mo.

Location.--Lat 36°14'10", long 89°58'35", in NW¼ sec.3, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--89.0 sq mi. Slope.--1.0 ft per mile.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements, large shifts in relation occur frequently.

Bankfull stage.--10 ft.

Remarks.--Ditch completed after November 1926. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 29, 1927	15.57	4,140				
1928	June 24, 1928	8.15	966				
1929	Feb. 26, 1929	9.43	1,330				
1930	Jan. 14, 1930	11.04	1,820				
1931	Apr. 27, 1931	4.50	212				
1932	Jan. 17, 1932	9.82	1,350				
1933	Apr. 23, 1933	10.72	1,360				
1934	Mar. 29, 1934	11.38	1,160				
1935	Mar. 15, 1935	11.30	1,150				
1936	July 3, 1936	7.72	454				
1937	Jan. 23, 1937	12.23	3,420				
1938	Feb. 19, 1938	11.10	1,940				
1939	Feb. 3, 1939	10.63	1,780				
1940	Apr. 20, 1940	7.84	1,110				
1941	Jan. 24, 1941	4.3	355				
1942	Apr. 10, 1942	10.69	1,720				
1943	Mar. 20, 1943	9.3	962				
1944	Apr. 12, 1944	11.27	1,540				
1945	June 12-15, 1945	11.6	1,890				
1946	Jan. 11, 1946	10.98	1,730				
1947	Apr. 11, 1947	8.95	1,200				
1948	Mar. 23, 1948	9.45	1,360				
1949	Mar. 27, 1949	10.78	1,470				
1950	Feb. 15, 16 1950	11.73	2,370				
1951	Feb. 22, 23, 1951	11.37	2,110				
1952	Mar. 11, 1952	11.95	2,670				
1953	Mar. 18, 1953	6.37	1,080				
1954	May 29, 1954	7.0	1,120				
1955	May 29, 1955	9.1	2,000				
1956	Feb. 18, 1956	10.95	3,080				
1957	July 4, 1957	11.81	2,920				
1958	Nov. 20, 1957	11.40	2,720				
1959	Jan. 21, 1959	10.20	2,440				
1960	May 21, 1960	8.00	1,650				
1961	May 7, 1961	10.8	2,680				
1962	Jan. 15, 1962	11.90	3,280				
1963	Mar. 5, 1963	8.00	1,650				
1964	Mar. 15, 1964	10.70	2,920				
1965	Feb. 12, 1965	10.38	2,230				

WHITE RIVER BASIN

7-0500. White River at Beaver, Ark.

Location.--Lat 36°28'20", long 93°45'55", in NE¼ sec.20, T.21 N., R.26 W., on upstream side of Missouri & North Arkansas Railway bridge, a quarter of a mile east of Beaver, 2 3/4 miles upstream from Leatherwood Creek, and at mile 595.5.

Drainage area.--1,238 sq mi. Slope.--4.48 ft per mi.

Gage.--Nonrecording. Datum of gage is 883.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 90,000 cfs.

Bankfull stage.--30 ft.

Remarks.--Peaks for period 1921-23 computed from plotted Empire District Electric Co. gage readings at site 1,500 ft upstream revised to read same as present gage. Base for partial-duration series, 22,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1898	-	40	a94,000	1943	Dec. 29, 1942	31.95	59,500
					May 12, 1943	42.33	105,000
1910	May 17, 1910	17.35	a21,500	1944	June 16, 1944	22.3	31,300
1922	Apr. 6, 1922	10.50	9,400	1945	Feb. 23, 1945	23.00	33,000
1923	Feb. 2, 1923	21.08	28,200		Feb. 28, 1945	21.40	29,200
1924	May 1, 1924	18.35	23,500		Mar. 4, 1945	19.96	26,100
1925	Dec. 20, 1924	18.12	22,900		Mar. 20, 1945	28.25	47,100
1926	Oct. 11, 1925	12.3	b12,300		Apr. 1, 1945	22.65	32,000
					Apr. 16, 1945	40.9	98,200
1927	Jan. 25, 1927	21.70	29,400		May 17, 1945	18.38	22,600
	Apr. 16, 1927	37.0	80,200		June 12, 1945	29.75	52,000
	Apr. 20, 1927	25.10	36,300	1946	Feb. 15, 1946	22.55	32,000
					May 26, 1946	32.50	61,400
1928	Oct. 2, 1927	25.65	39,700	1947	Nov. 11, 1946	20.60	27,400
	Oct. 4, 1927	26.85	43,000		Dec. 12, 1946	20.97	28,300
	Dec. 15, 1927	30.60	48,900	1948	Aug. 16, 1948	24.52	36,800
	Apr. 7, 1928	22.10	30,800				
	Apr. 22, 1928	26.50	42,200	1949	Jan. 26, 1949	26.3	41,600
	June 14, 1928	23.73	34,800		Feb. 16, 1949	28.5	48,000
	June 22, 1928	18.78	23,500	1950	Jan. 6, 1950	19.9	25,900
1929	Jan. 26, 1929	23.85	33,900		Jan. 15, 1950	21.0	28,300
	Apr. 10, 1929	19.01	23,900		Feb. 14, 1950	20.1	26,300
	May 10, 1929	20.99	28,300		May 12, 1950	31.95	59,500
	July 9, 1929	22.00	30,600		July 20, 1950	21.3	29,000
1930	May 12, 1930	19.15	24,500		Aug. 7, 1950	20.1	26,300
1931	Feb. 10, 1931	19.69	25,100	1951	Feb. 20, 1951	27.75	45,900
1932	Jan. 18, 1932	16.15	19,100	1952	Mar. 12, 1952	18.58	23,100
					Apr. 14, 1952	19.10	24,100
1933	Dec. 25, 1932	20.46	27,200	1953	Mar. 16, 1953	21.10	25,900
	May 15, 1933	27.70	42,200		May 14, 1953	21.65	27,100
	Sept. 5, 1933	18.89	23,700	1954	May 4, 1954	13.8	12,100
1934	Oct. 23, 1933	14.83	16,500	1955	Mar. 22, 1955	20.20	23,900
1935	Mar. 13, 1935	22.74	32,300	1956	May 17, 1956	23.7	31,800
	June 4, 1935	23.73	34,800	1957	Apr. 5, 1957	33.50	61,600
	June 9, 1935	21.70	29,900		Apr. 28, 1957	19.3	22,000
	June 19, 1935	27.55	41,100		May 19, 1957	24.5	34,400
1936	Dec. 8, 1935	12.32	12,000		May 25, 1957	33.0	59,700
1937	Jan. 16, 1937	18.58	23,400	1958	Aug. 3, 1958	16.72	17,700
1938	Feb. 19, 1938	26.80	40,300				
	May 24, 1938	19.82	25,700				
1939	Apr. 18, 1939	16.70	19,700				
1940	Apr. 13, 1940	16.00	18,400				
1941	Jan. 3, 1941	19.44	24,800				
	Apr. 20, 1941	26.3	39,500				
1942	Nov. 1, 1941	20.5	27,200				
	Apr. 10, 1942	20.35	27,000				

a Annual peak only.

b Maximum crest discharge; maximum discharge, 19,300 cfs at 2400 Sept. 30, 1926, rising stage.

WHITE RIVER BASIN

7-0507. James River near Springfield, Mo.

Location.--Lat 37°12'12", long 93°09'00", in NE¼NW¼ sec.11, T.28 N., R.21 W., 2½ miles southeast of Springfield.Drainage area.--246 sq mi. Slope.--6.50 ft per mi.Gage.--Nonrecording prior to Dec. 19, 1955; recording thereafter. Datum of gage is 1,143.27 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs and by flow over dam measurement at 24,800 cfs.Bankfull stage.--13 ft.Remarks.--Base for partial-duration series 4,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 15, 1956	15.20	12,400	1957	Mar. 24, 1957	12.78	5,090
	June 25, 1956	13.35	6,150		Apr. 3, 1957	14.85	10,800
1957	Mar. 24, 1957	12.78	5,090		May 21, 1957	14.28	8,880
	Apr. 3, 1957	14.85	10,800		May 23, 1957	15.57	14,100
	May 21, 1957	14.28	8,880		May 25, 1957	14.91	11,200
	May 23, 1957	15.57	14,100		June 2, 1957	12.19	4,400
	May 25, 1957	14.91	11,200		Sept. 2, 1957	11.83	4,040
	June 2, 1957	12.19	4,400	1958	Dec. 17, 1957	18.20	24,800
	Sept. 2, 1957	11.83	4,040		Mar. 9, 1958	11.86	4,130
1958	Dec. 17, 1957	18.20	24,800		Mar. 23, 1958	13.95	7,860
	Mar. 9, 1958	11.86	4,130		July 7, 1958	15.80	14,800
	Mar. 23, 1958	13.95	7,860		July 17, 1958	15.40	13,200
	July 7, 1958	15.80	14,800		July 31, 1958	12.83	5,090
	July 17, 1958	15.40	13,200	1959	June 1, 1959	8.22	1,590
	July 31, 1958	12.83	5,090		Oct. 4, 1959	11.91	4,130
1959	June 1, 1959	8.22	1,590	1960	Dec. 18, 1959	13.38	6,150
	Oct. 4, 1959	11.91	4,130		May 6, 1960	14.66	10,400
	Dec. 18, 1959	13.38	6,150	1961	May 1, 1961	12.65	4,820
1960	May 6, 1960	14.66	10,400		May 5, 1961	13.10	5,570
	May 1, 1961	12.65	4,820		May 9, 1961	12.43	4,590
	May 5, 1961	13.10	5,570	1962	Mar. 21, 1962	11.04	3,340
1961	May 9, 1961	12.43	4,590		May 13, 1963	13.55	6,630
	Mar. 21, 1962	11.04	3,340	1963	May 26, 1963	15.95	15,600
1962	May 13, 1963	13.55	6,630		Apr. 5, 1964	12.00	4,220
	May 26, 1963	15.95	15,600	1964	Apr. 4, 1965	15.00	11,600
1963	Apr. 5, 1964	12.00	4,220		Apr. 6, 1965	17.05	19,800
	Apr. 4, 1965	15.00	11,600		Sept. 5, 1965	14.20	8,540
1964	Apr. 6, 1965	17.05	19,800	1965	Sept. 5, 1965	14.20	8,540
	Sept. 5, 1965	14.20	8,540				

WHITE RIVER BASIN

7-0508. Maple Grove Branch near Ozark, Mo.

Location.--Lat 37°04'20", long 93°13'05", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.3, T.27 N., R.21 W., on left bank just upstream from culvert under old State Highway 65, 3.4 miles north of Ozark.

Drainage area.--0.64 sq mi. Slope.--59.5 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed May 19, 1965.

Stage-discharge relation.--Defined at 113 and 298 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Sept. 2, 1957	6.95	243				
1958	Dec. 16, 1957	6.63	218				
1959	May 31, 1959	7.65	298				
1960		(a)	(b)				
1961	June 7, 1961	7.58	293				
1962		(a)	(b)				
1963	May 13, 1963	5.20	103				
1964	July 1, 1964	6.58	213				
1965	Apr. 5, 1965	10.05	774				

a Stage below bottom of gage.

b Less than 50 cfs.

WHITE RIVER BASIN

7-0515. James River below Battlefield, Mo.
(Published as "near Battlefield" prior to June 1929)

Location--Lat 37°05'30", long 93°21'25", in NE¼ sec.32, T.28 N., R.22 W., at Blue Spring Highway bridge, 1.6 miles southwest of Battlefield and 3 miles upstream from Wilson Creek.

Drainage area--328 sq mi; 303 sq mi prior to May 13, 1929. Slope--6.33 ft per mi.

Gage--Nonrecording. Feb. 17, 1926, to May 13, 1929, at site 3 miles upstream at datum about 10 ft higher. May 13, 1929, to Jan. 7, 1932, at last used site and datum. Altitude of gage at last used site is 1,090 ft (from topographic map).

Stage-discharge relation--Defined by current-meter measurements below 8,800 cfs.

Remarks--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Sept. 30, 1926	6.30	1,920				
1927	Mar. 31, 1927	14.3	13,300				
	Apr. 9, 1927	10.70	7,020				
	Apr. 15, 1927	15.00	14,600				
	Apr. 19, 1927	10.50	6,700				
	June 21, 1927	9.40	5,010				
	Aug. 8, 1927	12.0	9,200				
	Aug. 17, 1927	10.7	7,020				
1928	Nov. 15, 1927	11.5	8,350				
	Dec. 14, 1927	11.6	8,520				
	Apr. 6, 1928	14.3	13,300				
	Apr. 22, 1928	11.3	8,010				
	June 9, 1928	15.80	16,200				
	June 13, 1928	9.00	4,450				
	June 28, 1928	16.10	16,800				
1929	Apr. 9, 1929	11.20	8,010				
	May 13, 1929	9.60	5,450				
	May 28, 1929	10.04	5,450				
1930	Jan. 14, 1930	9.82	4,630				
1931	Aug. 6, 1931	10.50	5,350				

WHITE RIVER BASIN

7-0520. Wilson Creek near Springfield, Mo.

Location.--Lat 37°11'35", long 93°20'20", in NW¼SE¼ sec.28, T.29 N., R.22 W., three-quarters of a mile downstream from Jordan Creek and 2 miles southwest of Springfield.

Drainage area.--19.4 sq mi. Slope.--23.3 ft per mi.

Gage.--Recording. Datum of gage is 1,196.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 900 cfs and extended to 2,440 cfs on basis of area-velocity studies.

Bankfull stage.--5 ft.

Remarks.--Base for partial-duration series, 400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	June 27, 1932	7.62	a2,440				
1933	Dec. 23, 1932	4.12	520				
	Apr. 15, 1933	4.12	520				
	May 13, 1933	4.69	732				
	July 8, 1933	5.07	922				
	Sept. 2, 1933	3.98	488				
1934	June 15, 1934	3.82	424				
1935	Mar. 11, 1935	4.58	692				
	Mar. 15, 1935	4.50	654				
	May 29, 1935	4.46	654				
	June 2, 1935	4.27	580				
	June 7, 1935	5.13	882				
	June 14, 1935	5.40	1,000				
	June 16, 1935	5.57	1,080				
	July 2, 1935	4.12	512				
	Aug. 12, 1935	3.85	424				
	Aug. 27, 1935	4.65	692				
1936	Sept. 28, 1936	3.77	398				
1937	Oct. 6, 1936	4.00	480				
	Oct. 25, 1936	4.30	580				
	Nov. 2, 1936	4.60	692				
	Jan. 8, 1937	3.90	452				
	Jan. 14, 1937	4.55	692				
	Jan. 30, 1937	4.10	512				
	Apr. 29, 1937	4.64	692				
	May 21, 1937	4.10	512				
	June 2, 1937	5.04	858				
	June 9, 1937	4.90	806				
	June 14, 1937	6.87	1,880				
	July 19, 1937	3.95	480				
	Sept. 5, 1937	4.20	544				
1938	Jan. 20, 1938	3.80	424				
	Feb. 18, 1938	3.90	452				
	May 6, 1938	4.10	512				
	May 23, 1938	3.95	480				
	June 16, 1938	5.35	980				

a Annual peak only.

WHITE RIVER BASIN

7-0525. James River at Galena, Mo.

Location.--Lat 36°48'20", long 93°27'50", in NW¼ sec.7, T.24 N., R.23 W., at bridge on State Highways 13 and 44 in Galena, half a mile upstream from Railey Creek and 42.3 miles above mouth.

Drainage area.--987 sq mi. Slope.--4.75 ft per mi.

Gage.--Nonrecording prior to July 22, 1939; recording thereafter. Prior to Dec. 11, 1927, at site 500 ft downstream at datum 1.48 ft higher; Dec. 11, 1927, to Sept. 30, 1953, at present site at datum 2.00 ft higher. Datum of present gage is 921.37 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Apr. 1, 1922	10.3	7,220	1944	Apr. 11, 1944	15.48	14,400
1923	Mar. 12, 1923	11.9	9,940	1945	Feb. 22, 1945	14.70	16,800
1924	July 12, 1924	15.5	15,600		Mar. 3, 1945	17.80	24,100
	Aug. 11, 1924	15.2	15,000		Mar. 7, 1945	17.29	22,800
1925					Apr. 3, 1945	19.55	28,900
	Dec. 19, 1924	16.7	18,000		Apr. 15, 1945	23.87	41,000
1926	Sept. 30, 1926	9.8	5,700	1946	Feb. 14, 1946	15.07	17,600
1927				1947	Apr. 25, 1947	23.65	40,100
	Apr. 1, 1927	20.4	25,500				
	Apr. 10, 1927	18.6	21,700	1948	June 19, 1948	15.30	18,100
	Apr. 15, 1927	27.1	41,900				
	Apr. 19, 1927	17.1	18,700	1949	Feb. 16, 1949	13.6	14,700
	May 9, 1927	14.4	13,000				
	Aug. 9, 1927	18.1	20,600	1950	Oct. 22, 1949	20.65	31,600
	Aug. 16, 1927	17.9	20,400		Jan. 4, 1950	12.8	13,200
1928					Jan. 14, 1950	15.0	17,500
	Nov. 15, 1927	15.2	14,800		May 11, 1950	18.4	25,600
	Apr. 7, 1928	19.78	24,200				
	June 10, 1928	21.94	28,900	1951	Feb. 19, 1951	14.59	16,700
	June 21, 1928	16.68	17,700		June 23, 1951	14.86	17,400
	June 29, 1928	20.72	26,100		July 1, 1951	18.90	26,900
1929					July 5, 1951	19.95	29,900
	Apr. 9, 1929	14.30	16,800				
	May 13, 1929	12.74	13,600	1952	Feb. 2, 1952	16.62	16,800
1930	Jan. 14, 1930	10.68	9,760	1953	Mar. 15, 1953	8.87	4,900
1931	Aug. 6, 1931	14.55	17,500	1954	May 3, 1954	8.87	4,900
1932	June 28, 1932	11.50	11,000	1955	Feb. 20, 1955	16.40	16,400
1933				1956	May 15, 1956	20.98	27,200
	Dec. 24, 1932	15.20	18,700				
	Apr. 16, 1933	13.20	14,600	1957	Apr. 4, 1957	19.20	22,600
	May 14, 1933	22.08	34,200		May 24, 1957	20.36	25,600
1934	Apr. 6, 1934	4.77	2,130		May 26, 1957	18.90	21,900
1935					June 3, 1957	15.00	13,800
	Mar. 11, 1935	27.05	50,200				
	June 3, 1935	14.83	17,900	1958	Dec. 18, 1957	21.46	28,600
	June 7, 1935	14.81	17,900		Mar. 24, 1958	17.37	19,500
	June 18, 1935	17.00	22,800		July 8, 1958	14.96	13,800
1936					July 18, 1958	16.80	17,200
	Sept. 23, 1936	10.85	10,300				
1937				1959	June 1, 1959	11.18	7,950
	Jan. 9, 1937	14.54	13,200				
	Jan. 15, 1937	16.80	17,900	1960	May 7, 1960	15.80	15,200
	Jan. 31, 1937	14.90	14,000				
	June 14, 1937	15.40	15,000	1961	May 9, 1961	26.20	41,900
1938	Feb. 19, 1938	16.08	16,400		May 23, 1961	14.80	13,500
1939	Feb. 20, 1939	13.0	10,700	1962	Mar. 22, 1962	9.08	5,180
1940	Apr. 12, 1940	14.44	13,100	1963	May 14, 1963	16.00	15,600
1941					May 27, 1963	16.40	16,400
	Apr. 17, 1941	15.50	14,300		June 16, 1963	15.54	14,700
	Apr. 20, 1941	28.87	49,900	1964	Apr. 6, 1964	13.75	11,800
1942							
	Oct. 31, 1941	17.54	18,100	1965	Apr. 4, 1965	22.97	32,700
	Apr. 9, 1942	14.20	12,000		Apr. 7, 1965	23.70	34,700
	June 18, 1942	15.10	13,600				
1943							
	Dec. 28, 1942	23.26	33,500				
	May 11, 1943	25.39	39,600				
	May 20, 1943	29.82	52,700				

WHITE RIVER BASIN

7-0527. Brawley Hollow near Cassville, Mo.

Location.--Lat 36°38'50", long 93°54'15", in NE¼SE¼ sec.1, T.22 N., R.28 W., on left bank just upstream from culvert on State Highway 37, 1.9 miles southwest on State Highway 37, from junctions of State Highways 37, 44, and 86 and approximately 3.1 miles southwest of Cassville.

Drainage area.--2.61 sq mi. Slope.--57.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 88 and 525 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	June 23, 1960	12.32	110				
1961	May 7, 1961	16.43	525				
1962		(a)	(b)				
1963	June 16, 1963	11.01	30				
1964	June 13, 1964	16.97	600				
1965	Apr. 2, 1965	13.69	225				

a Below zero of gage.

b Less than 25 cfs.

WHITE RIVER BASIN

7-0530. White River near Reeds Spring, Mo.

Location.--Lat 36°37'20", long 93°25'20", in NE¼SE¼ sec.9, T.22 N., R.23 W., at bridge on State Highway 13, 5 3/4 miles downstream from James River, 12 miles south of Reeds Spring, and at mile 543.8.

Drainage area.--3,617 sq mi. Slope.--3.53 ft per mi.

Gage.--Nonrecording prior to Dec. 17, 1938, May 11 to Oct. 1, 1943, and Mar. 11, 1945, to Feb. 14, 1947; recording Dec. 18, 1938, to May 10, 1943 (destroyed by flood), Oct. 2, 1943, to Mar. 10, 1945 (destroyed by flood), and Feb. 15, 1947, to Sept. 30, 1952. Datum of gage is 739.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 175,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 30,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 15, 1927	46.8	a195,000				
1938	Feb. 18, 1938	31.0	95,100				
	Mar. 30, 1938	15.3	31,300				
	May 24, 1938	19.9	47,400				
1939	Feb. 21, 1939	15.03	30,300				
	Apr. 18, 1939	18.55	42,700				
	May 13, 1939	19.74	46,700				
1940	Apr. 13, 1940	15.57	32,300				
1941	Apr. 16, 1941	19.2	44,800				
	Apr. 20, 1941	34.8	107,000				
1942	Nov. 1, 1941	22.35	53,900				
	Apr. 10, 1942	19.1	42,200				
1943	Oct. 31, 1942	15.50	30,800				
	Dec. 28, 1942	32.15	94,300				
	May 11, 1943	44.9	183,000				
	May 20, 1943	30.05	84,200				
1944	Apr. 11, 1944	15.33	30,100				
1945	Feb. 23, 1945	20.09	46,500				
	Feb. 28, 1945	17.57	38,000				
	Mar. 4, 1945	23.52	58,200				
	Mar. 21, 1945	26.25	68,400				
	Apr. 2, 1945	25.60	66,000				
	Apr. 16, 1945	47.00	196,000				
	May 17, 1945	17.8	38,700				
	June 12, 1945	27.75	75,000				
1946	Feb. 15, 1946	20.95	49,600				
	May 27, 1946	26.94	71,200				
1947	Dec. 12, 1946	21.2	50,300				
	Apr. 26, 1947	20.9	49,300				
1948	Aug. 17, 1948	16.57	34,800				
1949	Jan. 27, 1949	21.5	51,300				
	Feb. 16, 1949	26.56	70,000				
1950	Jan. 5, 1950	17.62	38,000				
	Jan. 15, 1950	20.00	46,200				
	Feb. 14, 1950	18.04	39,400				
	May 12, 1950	38.65	135,000				
	July 20, 1950	15.56	31,700				
1951	Feb. 21, 1951	27.80	75,000				
	July 2, 1951	18.76	42,100				
	July 5, 1951	18.71	41,800				
1952	Mar. 12, 1952	15.90	32,600				
	Apr. 14, 1952	17.09	36,400				

a Annual peak only.

WHITE RIVER BASIN

7-0535. White River near Branson, Mo.
(Published as "at Forsyth" prior to 1953)

Location.--Lat 36°35'51", long 93°17'42", SE¼NE¼ sec.22, T.22 N., R.22 W., on left bank 0.9 mile downstream from Table Rock Dam, 5 miles southwest of Branson, 7.4 miles upstream from Missouri Pacific Railroad Co. bridge, and at mile 527.8.

Drainage area.--4,022 sq mi; 4,544 sq miles prior to Oct. 1, 1952. Slope.--3.36 ft per mi.

Gage.--Recording. Prior to Oct. 1, 1952, at site 24 miles downstream at datum 55.36 ft lower. Datum of present gage is 696.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--35 ft.

Remarks.--Flow completely regulated by Table Rock Reservoir since Sept. 9, 1956. Base for partial-duration series, 36,000 cfs "at Forsyth", 33,000 cfs "near Branson".

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1898	-	38.80	a160,000	1948	June 19, 1948	17.43	46,100
1927	Apr. 16, 1927	45.36	a212,000	1949	Jan. 27, 1949	22.0	65,700
1930	May 12, 1930	14.50	31,100		Feb. 17, 1949	23.37	72,000
1931	Feb. 11, 1931	14.50	31,100	1950	Jan. 5, 1950	16.28	41,500
1932	Jan. 17, 1932	15.70	35,500		Jan. 15, 1950	18.17	49,400
1933	Dec. 25, 1932	19.18	47,400		Feb. 14, 1950	16.66	43,200
	May 15, 1933	29.3	84,600		May 12, 1950	38.75	161,000
1934	Apr. 7, 1934	11.25	21,300	1951	Feb. 20, 1951	25.64	82,400
1935	Mar. 11, 1935	35.23	127,000		July 2, 1951	16.88	44,000
	Mar. 25, 1935	18.57	50,700		July 4, 1951	17.10	44,800
	June 4, 1935	23.10	68,700	1952	Mar. 12, 1952	14.22	36,100
	June 8, 1935	23.68	71,100		Apr. 14, 1952	15.07	40,100
	June 19, 1935	26.31	81,600	1953	Mar. 16, 1953	21.22	32,600
1936	Sept. 29, 1936	12.53	28,100	1954	May 4, 1954	15.18	17,800
1937	Jan. 16, 1937	18.49	50,600	1955	Dec. 30, 1954	21.91	35,500
	Feb. 1, 1937	15.18	37,900		Feb. 21, 1955	22.24	36,400
1938	Feb. 18, 1938	29.84	110,000	1956	May 16, 1956	36.9	89,100
	Mar. 29, 1938	15.22	37,600	1957	June 10-11, 1957	18.53	25,900
	May 24, 1938	17.93	49,800	1958	May 16, 1958	12.50	10,600
1939	Apr. 19, 1939	16.19	42,000	1959	Nov. 20, 1958	-	7,300
	May 13, 1939	18.83	54,100	1960	May 15, 1960	-	18,000
1940	Apr. 12, 1940	16.32	42,500	1961	May 12, 1961	20.70	b 33,000
1941	Apr. 16, 1941	20.17	56,900	1962	Dec. 20, 1961	-	b 7,840
	Apr. 20, 1941	30.57	106,000	1963	July 18, 1963	-	b 4,010
1942	Nov. 1, 1941	20.00	56,000	1964	Aug. 4, 1964	-	b 5,370
	Apr. 11, 1942	17.15	44,000	1965	Aug. 25, 1965	-	b 5,150
1943	Dec. 29, 1942	28.45	96,000				
	May 12, 1943	42.0	193,000				
	May 20, 1943	28.68	97,500				
1944	Mar. 22, 1944	14.76	34,600				
1945	Feb. 22, 1945	18.83	51,300				
	Mar. 1, 1945	16.38	41,200				
	Mar. 4, 1945	21.05	61,300				
	Mar. 21, 1945	23.36	71,600				
	Apr. 2, 1945	26.92	88,600				
	Apr. 16, 1945	43.77	209,000				
	May 18, 1945	16.00	39,500				
	June 13, 1945	23.83	73,800				
1946	Feb. 15, 1946	18.63	50,500				
	May 27, 1946	22.90	69,800				
1947	Nov. 6, 1946	17.80	47,500				
	Nov. 10, 1946	16.50	42,400				
	Dec. 12, 1946	20.46	59,200				
	Apr. 26, 1947	18.40	50,100				

a Annual peak only.

b Maximum daily discharge.

WHITE RIVER BASIN

7-0539.5. Ingenthron Hollow near Forsyth, Mo.

Location--Lat 36°43'52", long 93°07'30", in SW¼NE¼ sec.17, T.24 N., R.20 W., on right bank, just upstream from culvert under County Road H, 2 miles north of Forsyth.

Drainage area--0.65 sq mi. Slope--186 ft per mi.

Gage--Crest-stage gage; supplemental recording gage installed Aug. 7, 1962 and removed June 7, 1966.

Stage-discharge relation--Defined at 98, 224, and 1,190 cfs by indirect measurements. Defined below 17 cfs by current-meter measurement.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 22, 1957	14.61	224				
1958	Sept.16, 1958	14.44	210				
1959	June 1, 1959	12.92	108				
1960	May 6, 1960	21.3	1,190				
1961	May 7, 1961	14.61	224				
1962	Sept.15, 1962	12.36	80				
1963	June 15, 1963	13.88	175				
1964	June 13, 1964	14.58	220				
1965	July 6, 1965	14.43	210				

WHITE RIVER BASIN

7-0541. Cedar Hollow at Bradleyville, Mo.

Location--Lat 36°46'45", long 92°55'25", in NE¼SW¼ sec.10, T.24 N., R.18 W., on right bank just upstream from culvert under State Highway 76, 0.8 mile southwest of Bradleyville.

Drainage area--0.83 sq mi. Slope--204 ft per mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined at 515, 643, and 1,230 cfs by indirect measurement. Defined below 35 cfs by current-meter measurements.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Aug. 29, 1956	8.92	643				
1957	May 22, 1957	7.88	515				
1958	Aug. 1, 1958	7.20	430				
1959	Nov. 16, 1958	4.20	80				
1960	May 6, 1960	11.76	1,160				
1961		(a)	(b)				
1962	Sept.15, 1962	6.85	370				
1963	May 13, 1963	7.8	510				
1964		(a)	(b)				
1965	May 10, 1965	7.95	520				

a Stage below bottom of gage.

b Discharge less than 70 cfs.

WHITE RIVER BASIN

7-0542. Yandell Branch near Kirbyville, Mo.

Location.--Lat 36°36'36", long 93°05'47", in NE¼SW¼ sec.27, T.23 N., R.20 W., on right bank just upstream from corrugated metal culvert on County Road K, 2.8 miles southeast of Kirbyville, 7½ miles southeast of Branson and 5 miles south of Forsyth.

Drainage area.--0.33 sq mi. Slope.--116 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed June 8, 1966.

Stage-discharge relation.--Defined at 48, 168, and 291 cfs by indirect measurements. Defined below 7 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	14.01	48				
1956	May 13, 1956	16.63	168				
1957	Feb. 5, 1957	13.26	20				
1958	Mar. 8, 1958	13.73	37				
1959	Sept. 4, 1959	13.70	32				
1960	May 6, 1960	18.90	291				
1961	May 7, 1961	(a)	(b)				
1962	Dec. 16, 1961	13.50	12				
1963	June 16, 1963	15.56	115				
1964	Aug. 22, 1964	13.23	4				
1965	Apr. 3, 1965	15.97	140				

a Table Rock Reservoir backed over gage.

b Discharge not determined.

WHITE RIVER BASIN

7-0543. Gray Branch at Lutie, Mo.

Location.--Lat 36°35'05", long 92°42'30", in NE¼SW¼ sec.15, T.22 N., R.16 W., on left bank just upstream from culvert under U.S. Highway 160, 0.1 mile west of junction of Highways 95 and 160, 1.0 mile east of junction of P and 160 and 1.7 miles west of Lutie.

Drainage area.--0.23 sq mi. Slope.--279 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed July 15, 1959, removed Aug. 6, 1962.

Stage-discharge relation.--Defined at 58, 96, 223, and 262 cfs by indirect measurements. Defined below 2 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 26, 1955	8.82	210				
1956	May 14, 1956	9.57	246				
1957	Apr. 3, 1957	7.59	150				
1958	Sept. 16, 1958	6.86	115				
1959	Nov. 16, 1958	5.18	52				
1960	May 6, 1960	7.42	140				
1961	May 7, 1961	9.13	225				
1962	Apr. 10, 1962	5.92	77				
1963	June 16, 1963	6.17	96				
1964	Aug. 27, 1964	6.03	90				
1965	Apr. 3, 1965	7.75	170				

WHITE RIVER BASIN

7-0575. North Fork River near Tecumseh, Mo.

Location.--Lat 36°37'22", long 92°14'53", in NE¼SE¼ sec.35, T.23 N., R.12 W., on right bank 3.2 miles downstream from Spring Creek and 3½ miles northeast of Tecumseh.

Drainage area.--561 sq mi. Slope.--8.29 ft per mi.

Gage.--Nonrecording prior to May 11, 1945, at datum 0.22 ft lower; recording since May 12, 1945, at present datum. Datum of present gage is 584.67 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs.

Bankfull stage.--14 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Feb. 21, 1945	9.0	9,590	1960	Dec. 27, 1959	6.56	5,050
	Feb. 26, 1945	13.2	17,700	1961	Mar. 6, 1961	6.63	5,050
	Mar. 6, 1945	6.6	5,400		May 7, 1961	13.72	18,100
	Mar. 19, 1945	8.0	7,610	1962	Jan. 22, 1962	8.30	7,810
	Mar. 30, 1945	10.7	12,800				
	Apr. 2, 1945	8.1	7,790				
	Apr. 15, 1945	16.7	25,100	1963	May 26, 1963	8.27	7,810
	May 10, 1945	7.2	6,400				
	June 9, 1945	6.38	5,400		June 16, 1963	9.53	9,950
	June 11, 1945	8.75	9,590				
	June 17, 1945	10.60	12,900	1964	Mar. 10, 1964	7.01	5,650
1946	Feb. 14, 1946	12.22	15,100	1964	Apr. 6, 1964	10.63	12,000
	Mar. 6, 1946	7.60	6,620		Apr. 4, 1965	6.63	5,050
	May 16, 1946	11.23	13,100				
	May 25, 1946	9.81	10,500				
1947	Nov. 10, 1946	9.94	10,700				
	Dec. 12, 1946	7.79	6,790				
	Apr. 25, 1947	8.22	7,640				
1948	Jan. 1, 1948	7.25	5,970				
	June 18, 1948	7.46	6,450				
1949	Jan. 19, 1949	7.4	6,290				
	Jan. 24, 1949	14.9	20,600				
	Jan. 28, 1949	8.76	8,690				
	Feb. 15, 1949	11.9	14,500				
	June 11, 1949	8.44	7,980				
	July 7, 1949	8.83	8,690				
1950	Jan. 4, 1950	18.05	27,400				
	Jan. 13, 1950	9.30	9,590				
	Feb. 13, 1950	7.69	6,790				
	Apr. 4, 1950	6.91	5,500				
	May 10, 1950	12.80	16,300				
	June 10, 1950	6.64	5,050				
1951	Feb. 11, 1951	7.47	6,450				
	July 11, 1951	7.30	6,130				
1952	Nov. 24, 1951	7.94	7,130				
	Mar. 11, 1952	9.17	9,410				
	Apr. 12, 1952	9.74	10,300				
1953	Apr. 18, 1953	5.83	3,920				
1954	Mar. 24, 1954	5.67	3,780				
1955	Mar. 21, 1955	16.95	25,100				
1956	May 15, 1956	15.65	22,100				
1957	Apr. 4, 1957	13.10	16,900				
	Apr. 27, 1957	8.13	7,470				
	May 19, 1957	6.83	5,350				
	May 23, 1957	13.60	17,900				
	May 25, 1957	8.48	8,150				
1958	Dec. 18, 1957	6.60	5,050				
	Mar. 24, 1958	9.45	9,770				
	July 12, 1958	10.15	11,200				
	July 17, 1958	9.66	10,300				
1959	Nov. 16, 1958	8.50	8,150				

WHITE RIVER BASIN

7-0580. Bryant Creek near Tecumseh, Mo.

Location.--Lat 36°37'35", long 92°18'25", in E½ sec.32, T.23 N., R.12 W., three-quarters of a mile downstream from Pine Creek, 3 miles northwest of Tecumseh, and 5 miles upstream from mouth.

Drainage area.--570 sq mi. Slope.--8.83 ft per mi.

Gage.--Nonrecording prior to July 30, 1945; recording thereafter. Datum of gage is 573.15 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 27,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Feb. 21, 1945	15.50	16,200	1960	May 6, 1960	8.80	4,400
	Feb. 26, 1945	15.80	17,000	1961	May 8, 1961	16.52	18,800
	Mar. 6, 1945	10.85	6,230				
	Mar. 19, 1945	11.45	7,110	1962	Jan. 22, 1962	8.64	4,200
	Mar. 31, 1945	11.00	6,500				
	Apr. 2, 1945	11.40	7,110	1963	Mar. 5, 1963	10.52	6,100
	Apr. 14, 1945	18.00	22,600				
	May 10, 1945	10.75	6,100		May 26, 1963	14.08	12,800
	June 11, 1945	11.20	6,800	1964	Apr. 6, 1964	12.21	8,500
	June 17, 1945	14.50	15,000				
1946	Feb. 14, 1946	15.86	17,200	1965	Apr. 5, 1965	12.78	9,760
	May 16, 1946	14.21	13,900				
1947	Nov. 10, 1946	16.17	18,000				
	Dec. 12, 1946	10.76	6,230				
	Apr. 25, 1947	11.19	6,800				
1948	June 19, 1948	11.00	6,500				
1949	Jan. 25, 1949	14.3	14,200				
	Jan. 28, 1949	12.55	9,260				
	Feb. 15, 1949	14.75	16,000				
	July 8, 1949	11.2	6,800				
	July 10, 1949	10.88	6,360				
1950	Jan. 4, 1950	19.50	26,500				
	Jan. 13, 1950	12.87	9,960				
	Feb. 13, 1950	12.29	8,640				
	Apr. 4, 1950	10.80	6,230				
	May 12, 1950	14.99	15,000				
	Aug. 8, 1950	12.9	9,960				
	Aug. 28, 1950	10.96	6,500				
1951	Feb. 19, 1951	10.99	6,500				
	July 1, 1951	13.22	10,700				
	July 4, 1951	11.66	7,590				
	July 11, 1951	11.45	7,110				
1952	Mar. 11, 1952	12.45	8,840				
	Apr. 12, 1952	12.10	8,280				
1953	Mar. 18, 1953	7.89	3,490				
1954	Mar. 24, 1954	8.72	4,140				
1955	Mar. 21, 1955	16.71	19,200				
1956	May 15, 1956	19.64	26,800				
1957	Apr. 4, 1957	14.20	13,100				
	May 23, 1957	15.65	16,500				
	May 25, 1957	14.30	13,300				
	June 2, 1957	10.70	6,310				
	June 5, 1957	10.80	6,420				
1958	Mar. 24, 1958	12.95	10,200				
	May 30, 1958	13.75	12,100				
	July 12, 1958	12.78	9,760				
	July 17, 1958	12.26	8,700				
1959	July 5, 1959	13.06	10,400				

WHITE RIVER BASIN

7-0585. North Fork River at Tecumseh, Mo.
(Published as "North Fork of White River" prior to 1940)

Location.--Lat 36°36'16", long 92°17'19", in NW¼NE¼ sec.16, T.22 N., R.12 W., at bridge on U. S. Highway 160 at Tecumseh, half a mile downstream from Bryant Creek, 3 miles upstream from Lick Creek, and 9 miles upstream from Missouri-Arkansas border.

Drainage area.--1,157 sq mi. Slope.--8.04 ft per mi.

Gage.--Nonrecording prior to May 31, 1940; recording June 1, 1940, to Feb. 28, 1945. Prior to June 29, 1924, at site 200 ft downstream at different datum. Datum of present gage is 547.75 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 48,000 cfs and extended above by logarithmic plotting. Shifts in relation occur.

Bankfull stage.--24 ft.

Remarks.--Station discontinued because of backwater from Norfolk Dam. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	July 1905	31.6	a85,000	1943	Dec. 27, 1942	22.28	51,000
					Dec. 29, 1942	11.90	21,300
1915	August 1915	31.0	a80,000		May 11, 1943	22.86	52,900
					May 18, 1943	21.67	48,700
1922	Mar. 31, 1922	7.1	8,180		May 20, 1943	13.23	24,800
					June 23, 1943	8.50	13,200
1923	Feb. 1, 1923	18.6	34,400				
	Mar. 16, 1923	8.4	10,500	1944	Apr. 11, 1944	3.82	3,830
1924	June 11, 1924	20.0	38,300				
1925	Dec. 19, 1924	10.50	14,600				
1926	Oct. 17, 1925	5.70	5,980				
1927	Apr. 1, 1927	10.36	14,300				
	Apr. 14, 1927	20.80	41,300				
	Apr. 19, 1927	15.31	24,200				
	May 6, 1927	8.73	11,500				
	June 21, 1927	12.90	18,800				
	Aug. 15, 1927	11.39	16,000				
1928	Nov. 8, 1927	8.97	12,000				
	Dec. 14, 1927	16.20	26,600				
	Apr. 6, 1928	8.70	11,500				
	Apr. 21, 1928	10.30	14,100				
	June 9, 1928	11.48	16,200				
	June 13, 1928	24.00	53,000				
1929	Jan. 25, 1929	9.10	12,200				
1930	Jan. 14, 1930	8.50	11,200				
1931	Feb. 9, 1931	4.30	4,550				
1932	Jan. 17, 23, 1932	4.18	4,250				
1933	May 14, 1933	15.70	25,200				
1934	Mar. 28, 1934	2.44	1,850				
1935	Mar. 11, 1935	20.53	39,900				
	June 3, 1935	10.99	15,300				
	June 18, 1935	8.95	12,000				
1936	Sept. 24, 1936	4.75	5,300				
1937	Jan. 15, 1937	10.33	14,100				
	May 2, 1937	9.06	12,200				
	June 10, 1937	10.60	14,600				
1938	Feb. 18, 1938	16.80	28,600				
	Mar. 29, 1938	8.86	11,600				
	May 23, 1938	14.00	21,400				
1939	Apr. 17, 1939	12.6	19,200				
1940	Apr. 11, 1940	8.9	13,800				
1941	Apr. 16, 1941	10.95	18,700				
1942	Oct. 18, 1941	9.25	15,000				
	Oct. 31, 1941	12.4	22,500				
	June 18, 1942	9.37	15,300				

a Annual peak only.

WHITE RIVER BASIN

7-0613. East Fork Black River at Lesterville, Mo.

Location--Lat 37°27'00", long 90°49'40", in NE¼SE¼ sec. 16, T.32 N., R.2 E., at bridge on State Highway 21, at Lesterville, and three-quarters of a mile upstream from Black River.

Drainage area--94.5 sq mi. Slope--29.7 ft per mi.

Gage--Recording. Datum of gage is 655.34 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 4,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	Nov. 15, 1960	7.17	2,350	1962	Jan. 22, 1962	6.95	2,070
	Mar. 5, 1961	9.50	6,490		Mar. 21, 1962	7.55	2,920
	May 7, 1961	9.80	7,200				
	June 15, 1961	8.10	3,760				
1963	May 26, 1963	6.75	1,810	1964	Mar. 9, 1964	8.05	4,480
1965	Mar. 7, 1965	5.33	858				

WHITE RIVER BASIN

7-0615. Black River near Annapolis, Mo.

Location.--Lat 37°20'10", long 90°47'15", in SW¼NW¼ sec.25, T.31 N., R.2 E., 0.4 mile downstream from Mayberry Branch, 7 miles southwest of Annapolis, 11 miles downstream from East Fork, and at mile 278.5.

Drainage area.--484 sq mi. Slope.--10.9 ft per mi.

Gage.--Recording. Datum of gage is 569.72 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Aug. 21, 1942, at site 415 ft upstream at same datum.

Stage-discharge relation.--Defined by current-meter measurements below 33,000 cfs.

Remarks.--Gage-height record prior to Oct. 1, 1939, furnished by Corps of Engineers. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	17.4	a 32,500	1957	May 19, 1957	11.62	14,600
					May 23, 1957	15.75	28,300
1940	Apr. 19, 1940	8.51	6,920		May 25, 1957	9.69	9,400
					June 30, 1957	11.45	14,000
1941	Apr. 17, 1941	10.14	9,330		July 2, 1957	12.47	17,400
1942	Oct. 31, 1941	9.60	8,240	1958	Dec. 17, 1957	17.45	34,400
	Jan. 31, 1942	10.27	9,560		Mar. 24, 1958	13.36	20,200
					July 17, 1958	8.87	7,600
1943	Oct. 30, 1942	9.15	7,740				
	Dec. 27, 1942	17.60	33,400	1959	Nov. 17, 1958	10.86	12,600
	May 11, 1943	18.9	37,900		Apr. 20, 1959	8.55	7,010
	May 18, 1943	10.1	9,520				
				1960	Dec. 18, 1959	10.50	11,500
1944	Apr. 23, 1944	10.13	9,520				
	May 3, 1944	11.58	13,400	1961	Mar. 6, 1961	14.50	23,800
					May 7, 1961	15.87	28,600
1945	Mar. 31, 1945	16.6	31,300				
	Apr. 14, 1945	17.7	35,600	1962	Mar. 21, 1962	14.00	22,200
	June 8, 1945	20.1	45,400				
	June 10, 1945	20.1	45,400	1963	May 26, 1963	10.60	12,300
1946	Jan. 9, 1946	9.40	8,680	1964	Mar. 9, 1964	14.46	23,800
	Feb. 13, 1946	16.67	31,700		Apr. 6, 1964	12.24	16,600
	Mar. 6, 1946	9.90	9,900				
	May 1, 1946	10.4	11,200	1965	Apr. 6, 1965	9.49	9,600
	May 16, 1946	12.6	17,700		Sept. 22, 1965	10.34	11,600
	May 25, 1946	15.6	27,600				
1947	Apr. 25, 1947	15.22	26,200				
	June 27, 1947	12.30	16,700				
1948	Jan. 1, 1948	13.72	21,200				
1949	Jan. 19, 1949	11.6	14,600				
	Jan. 24, 1949	17.15	33,600				
	Jan. 28, 1949	9.03	7,820				
	Feb. 15, 1949	12.66	18,000				
1950	Oct. 21, 1949	9.55	9,160				
	Jan. 4, 1950	17.63	35,200				
	Jan. 12, 1950	9.66	9,400				
	Feb. 13, 1950	9.61	9,160				
	May 10, 1950	12.38	17,000				
	June 10, 1950	8.57	7,080				
1951	Feb. 7, 1951	8.95	7,820				
	Feb. 19, 1951	11.22	13,400				
	June 24, 1951	9.57	9,160				
	June 30, 1951	11.82	15,200				
	July 10, 1951	11.22	13,400				
	July 13, 1951	12.99	19,000				
1952	Nov. 12, 1951	9.13	8,020				
	Mar. 11, 1952	10.84	12,300				
	Apr. 4, 1952	9.13	8,020				
	Apr. 13, 1952	9.34	8,460				
1953	Mar. 4, 1953	9.20	8,240				
1954	June 8, 1954	9.15	8,240				
1955	Mar. 21, 1955	11.56	14,600				
1956	May 15, 1956	12.76	18,300				
1957	Mar. 25, 1957	8.60	7,010				
	Apr. 4, 1957	19.30	42,100				
	Apr. 22, 1957	11.94	15,500				
	Apr. 27, 1957	12.70	18,000				

a Annual peak only.

WHITE RIVER BASIN

7-0618. Brawley Hollow near Centerville, Mo.

Location.--Lat 37°21'00", long 90°58'15", in SE¼NW¼ sec.29, T.31 N., R.1 E., on left bank just upstream from 4.5 x 10 ft double box culvert under State Highway 21, about 6 miles south of Centerville.

Drainage area.--1.00 sq mi. Slope.--133 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 90 and 134 cfs by indirect measurements. Defined below 42 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	5.15	90				
1956	May 14, 1956	5.58	134				
1957	May 22, 1957	5.98	250				
1958	Mar. 24, 1958	4.92	42				
1959		(a)	(b)				
1960		(a)	(b)				
1961	May 7, 1961	5.62	160				
1962	Jan. 22, 1962	5.22	100				
1963	May 25, 1963	5.62	160				
1964	Mar. 9, 1964	5.31	90				
1965	Sept. 5, 1965	5.37	95				

a Stage below bottom of gage.

b Less than 40 cfs.

WHITE RIVER BASIN

7-0625. Black River at Leeper, Mo.

Location.--Lat 37°04'45", long 90°42'50", in SE¼SW¼ sec.22, T.28 N., R.3 E., at bridge on State Highway 34, half a mile northwest of Leeper, 2 miles downstream from McKenzie Creek, 6 miles downstream from Clearwater Dam, and at mile 251.0.

Drainage area.--957 sq mi. Slope.--8.51 ft per mi.

Gage.--Nonrecording prior to Oct. 21, 1937, and Jan. 22 to Apr. 6, 1942; recording Oct. 22, 1937, to Jan. 21, 1942, and since Apr. 7, 1942. Prior to Apr. 7, 1942, gages at site 1,900 ft downstream at datum 3.85 ft lower. Datum of present gage is 428.51 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs.

Bankfull stage.--11 ft.

Remarks.--Flow regulated since June 3, 1948, by Clearwater Reservoir (capacity, 413,700 acre-ft). Base for partial-duration series, 9,000 cfs. Only annual peaks are shown subsequent to 1947.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	22.3	125,000	1939	Mar. 6, 1939	8.54	12,500
1915	August 1915	18.8	90,000		Apr. 17, 1939	12.60	33,400
1922	Nov. 19, 1921	11.1	24,000	1940	Apr. 20, 1940	8.05	10,800
	Mar. 31, 1922	10.0	20,700	1941	Apr. 18, 1941	7.10	8,000
	Apr. 18, 1922	7.74	10,400	1942	Nov. 1, 1941	8.37	12,000
	Apr. 28, 1922	7.46	9,460		Jan. 31, 1942	7.88	10,300
1923	Feb. 1, 1923	9.90	19,600	1943	Dec. 28, 1942	14.32	47,200
	Mar. 12, 1923	8.22	12,030		May 11, 1943	16.36	54,400
	Mar. 16, 1923	10.50	21,900		May 19, 1943	8.76	13,600
	May 16, 1923	10.48	21,870	1944	Apr. 23, 1944	9.04	14,400
1924	June 12, 1924	6.72	7,250		May 4, 1944	8.40	12,100
1925	Dec. 20, 1924	4.63	2,520	1945	Feb. 22, 1945	9.08	14,300
1926	Nov. 8, 1925	8.90	14,600		Feb. 26, 1945	12.16	28,200
1927	Apr. 1, 1927	13.75	42,400		Mar. 7, 1945	10.85	21,500
	Apr. 15, 1927	13.90	44,100		Mar. 31, 1945	13.86	37,400
	Apr. 20, 1927	9.00	14,900		Apr. 14, 1945	15.10	45,100
	May 25, 1927	12.65	33,400		June 8, 1945	17.08	59,700
	June 1, 1927	13.45	40,000		June 10, 1945	16.08	52,200
1928	Dec. 14, 1927	13.10	36,900		June 17, 1945	8.16	11,200
	Apr. 6, 1928	8.64	13,500	1946	Jan. 9, 1946	8.45	11,900
	Apr. 22, 1928	7.33	9,050		Feb. 14, 1946	14.35	40,400
	June 10, 1928	13.00	36,200		Mar. 7, 1946	8.10	11,900
	June 13, 1928	13.20	37,700		May 1, 1946	8.95	14,700
	June 17, 1928	7.68	10,200		May 17, 1946	11.10	23,300
	June 21, 1928	11.90	29,000		May 25, 1946	14.7	42,400
1929	Jan. 25, 1929	9.50	18,100	1947	Apr. 11, 1947	7.8	10,200
	Apr. 10, 1929	9.20	15,640		Apr. 25, 1947	13.27	34,000
	May 7, 1929	10.30	21,000		June 28, 1947	11.45	25,200
	May 13, 1929	13.10	36,900	1948	Jan. 2, 1948	8.65	12,600
	June 13, 1929	7.95	11,200	1949	Jan. 24, 1949	6.90	7,470
1930	Jan. 14, 1930	9.10	18,500	1950	Apr. 3, 1950	7.22	8,250
1931	Mar. 8, 1931	6.10	6,000	1951	Feb. 20, 1951	6.09	5,560
1932	Jan. 23, 1932	5.90	5,600	1952	Dec. 6, 1951	5.64	4,200
1933	Apr. 16, 1933	14.55	49,200	1953	Mar. 10, 1953	5.51	3,950
	May 14, 1933	17.5	78,400	1954	Feb. 18, 1954	5.31	3,630
1934	Aug. 22, 1934	5.50	4,280	1955	Mar. 20, 1955	8.40	11,400
1935	Mar. 11, 1935	16.9	72,300	1956	May 22, 23, 1956	5.53	3,200
	June 21, 1935	9.65	17,900	1957	May 23, 1957	8.10	10,400
1936	Nov. 5, 1935	7.15	8,660	1958	Dec. 19, 1957	5.91	4,470
1937	Oct. 9, 1936	8.00	10,800	1959	Nov. 17, 1958	7.47	8,550
	Jan. 8, 1937	7.75	9,820	1960	Dec. 21, 1959	5.13	3,300
	Jan. 15, 1937	11.85	28,400				
1938	Feb. 18, 1938	13.0	36,200				
	May 24, 1938	8.25	11,500				

WHITE RIVER BASIN

Peak stages and discharges of Black River at Leeper, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 7, 1961	6.65	6,290				
1962	Mar. 25, 1962	5.70	4,110				
1963	Apr. 2, 1963	5.40	3,620				
1964	Mar. 9, 1964	7.57	8,840				
1965	Sept. 22, 1965	6.15	5,060				

a Annual peak only.

WHITE RIVER BASIN

7-0630. Black River at Poplar Bluff, Mo.

Location.--Lat 36°45'35", long 90°23'15", in SW¼NW¼ sec.2, T.24 N., R.6 E, 1,500 ft upstream from bridge on U. S. Highway 60 in Poplar Bluff, 4 3/4 miles downstream from Indian Creek, and at mile 211.2.

Drainage area.--1,245 sq mi. Slope.--6.23 ft per mi.

Gage.--Nonrecording prior to June 8, 1955; recording thereafter. Prior to July 17, 1935, at site 300 ft downstream at datum 1.89 ft higher. July 17, 1935, to Sept. 30, 1940, at present site at datum 2.00 ft higher. Datum of present gage is 317.38 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 44,000 cfs; shifts in relation occur. Stage-discharge relation affected by right-bank levee constructed 1906-10 and left-bank levee constructed 1918-22.

Bankfull stage.--16 ft.

Remarks.--Flow regulated since June 3, 1948, by Clearwater Reservoir (capacity, 413,700 acre-ft). Peaks prior to Oct. 1, 1936, and Oct. 1, 1937, to Sept. 30, 1939, computed from plotted U. S. Weather Bureau gage readings. Base for partial-duration series, 6,000 cfs. Only annual peaks are shown subsequent to 1948.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	-	a100,000	1939	Feb. 1, 1939	16.3	7,260
					Mar. 7, 1939	17.9	13,900
1915	August 1915	a21.1	-		Apr. 19, 1939	19.4	24,800
1923	Jan. 21, 1923	16.3	7,260	1940	Apr. 21, 1940	17.8	10,300
	Feb. 3, 1923	19.3	23,900				
	Mar. 17, 1923	18.5	17,700	1941	Apr. 19, 1941	13.6	4,880
	May 6, 1923	17.1	9,900				
	May 17, 1923	19.2	23,100	1942	Nov. 3, 1941	17.38	8,520
1924	May 31, 1924	14.8	5,000		Feb. 2, 1942	16.26	6,770
					Apr. 10, 1942	17.3	8,290
1925	June 14, 1925	15.9	6,420	1943	Dec. 29, 1942	19.56	21,500
					May 12, 1943	20.77	52,600
1926	Oct. 18, 1925	15.8	6,250		May 21, 1943	17.53	8,770
	Nov. 10, 1925	17.5	11,700				
1927	Jan. 23, 1927	18.0	14,500	1944	Apr. 25, 1944	17.40	8,520
	Mar. 19, 1927	17.2	10,300		May 5, 1944	15.68	6,190
	Apr. 2, 1927	19.8	28,100	1945	Feb. 24, 1945	16.00	6,260
	Apr. 16, 1927	20.3	32,500		Feb. 28, 1945	19.70	27,000
	May 10, 1927	16.7	8,420		Mar. 8, 1945	18.82	14,800
	May 27, 1927	19.3	23,900		Mar. 21, 1945	17.18	8,080
	June 3, 1927	20.0	29,800		Apr. 1, 1945	19.85	28,800
1928	Dec. 15, 1927	20.1	30,700		Apr. 16, 1945	20.54	43,400
	Apr. 8, 1928	18.5	17,700		June 10, 1945	20.80	50,800
	Apr. 23, 1928	17.9	13,900		June 19, 1945	17.78	9,670
	June 15, 1928	19.9	29,000	1946	Jan. 11, 1946	16.73	7,210
	June 23, 1928	19.8	28,100		Feb. 15, 1946	19.53	23,500
1929	Jan. 27, 1929	18.5	17,700		May 3, 1946	17.77	9,670
	Apr. 11, 1929	18.0	14,500		May 18, 1946	18.21	11,200
	May 15, 1929	20.2	31,600		May 26, 1946	20.02	32,600
	June 15, 1929	17.2	10,300	1947	Apr. 13, 1947	16.29	6,620
1930	Jan. 16, 1930	19.3	23,900		Apr. 27, 1947	18.81	14,800
					June 29, 1947	16.25	6,490
1931	Mar. 9, 1931	14.6	4,820	1948	Jan. 3, 1948	18.09	10,800
1932	Jan. 24, 1932	14.6	4,820	1949	Jan. 25, 1949	18.85	14,800
1933	Dec. 31, 1932	16.6	8,100	1950	Feb. 14, June 5	17.9	10,000
	Jan. 23, 1933	16.8	8,760				
	Apr. 17, 1933	19.5	25,600	1951	Feb. 21, 1951	16.81	6,060
	May 16, 1933	20.6	35,300				
1934	Mar. 27, 1934	10.0	2,880	1952	Nov. 25, 1951	16.66	7,210
1935	Mar. 12, 1935	21.1	40,200	1953	Mar. 29, 1953	11.50	3,630
	May 6, 1935	15.7	6,090	1954	May 9, 1954	9.49	2,840
	June 23, 1935	17.7	12,700	1955	Mar. 22, 1955	16.85	7,370
1936	Apr. 6, 1936	12.6	3,796	1956	Feb. 18, 1956	12.92	4,400
1937	Oct. 11, 1936	16.2	7,020				
	Jan. 10, 1937	17.2	10,300	1957	Apr. 5, 1957	18.59	14,300
	Jan. 16, 1937	19.66	27,300				
	May 4, 1937	16.51	7,800	1958	Mar. 25, 1958	17.81	10,200
1938	Feb. 20, 1938	19.42	24,800	1959	Nov. 18, 1958	16.35	7,220
	Mar. 31, 1938	17.81	13,300				
	May 26, 1938	15.9	6,420	1960	May 21, 1960	12.30	3,800

WHITE RIVER BASIN

Peak stages and discharges of Black River at Poplar Bluff, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1961	May 8, 1961	18.65	14,300				
1962	Feb. 27, 1962	15.80	6,550				
1963	Mar. 17, 1963	12.22	4,000				
1964	Mar. 10, 1964	19.72	17,200				
1965	Apr. 4, 1965	13.04	4,420				

a Annual peak only, estimated.

WHITE RIVER BASIN

7-0632. Pike Creek Tributary near Poplar Bluff, Mo.

Location.--Lat 36°47'02", long 90°25'41", in SW¼SW¼ sec.28, T.25 N., R.6 E., on right bank just upstream from 6 x 6 ft box culvert under U.S. Highway 67 and 2 miles northwest of Poplar Bluff.

Drainage area.--0.28 sq mi. Slope.--111 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed July 16, 1959, and removed Mar. 26, 1964.

Stage-discharge relation.--Defined at 77, 171, 211, and 366 cfs by indirect measurements. Defined below 15 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	14.73	77				
1956	Feb. 18, 1956	13.58	28				
1957	May 23, 1957	16.31	171				
1958	Nov. 7, 1957	17.30	211				
1959	May 11, 1959	14.24	57				
1960	Dec. 11, 1959	13.99	47				
1961	May 6, 1961	16.82	198				
1962	Feb. 25, 1962	16.16	160				
1963	June 15, 1963	15.56	122				
1964	Mar. 8, 1964	19.23	366				
1965	Nov. 28, 1964	14.66	77				

WHITE RIVER BASIN

7-0645. Big Creek near Yukon, Mo.

Location--Lat 37°14'00", long 91°51'00", in SW¼NW¼ sec.5, T.29 N., R.8 W., on downstream side of right pier of bridge on State Highway 137, 3 miles south of Yukon.

Drainage area--8.36 sq mi. Slope--53.3 ft per mi.

Gage--Recording. Datum of gage is 1,194.81 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 2,900 cfs, and extended above on basis of contracted-opening measurement at 4,860 cfs.

Historical data--Flood of April 1945 reached a stage of about 10.5 ft and next highest flood (since 1932) reached a stage of about 10 ft in February 1935 from information by local resident.

Bankfull stage--5 ft.

Remarks--Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 4, 1950	3.36	1,120	1963	Mar. 4, 1963	3.30	1,030
	Jan. 13, 1950	3.84	1,980		May 16, 1963	3.34	1,090
	Apr. 2, 1950	3.14	820		May 25, 1963	3.40	1,180
	May 7, 1950	3.27	990				
	May 10, 1950	4.35	3,120	1964	Mar. 9, 1964	3.15	835
	May 11, 1950	3.32	1,060		Apr. 5, 1964	3.65	1,620
	June 10, 1950	2.90	565				
1951	Feb. 18, 1951	2.90	620	1965	Sept. 5, 1965	4.07	2,460
	Feb. 20, 1951	2.87	600		Sept. 21, 1965	3.16	908
	Apr. 6, 1951	3.28	1,000				
	June 29, 1951	3.70	1,170				
	June 30, 1951	4.28	2,950				
	July 10, 1951	3.60	1,530				
1952	Oct. 22, 1951	3.00	690				
	Oct. 27, 1951	3.37	1,140				
	Mar. 10, 1952	3.07	699				
	Apr. 12, 1952	2.82	568				
1953	Mar. 3, 1953	2.70	475				
1954	Mar. 25, 1954	2.68	462				
1955	Feb. 20, 1955	2.99	672				
	Mar. 20, 1955	3.20	895				
1956	May 15, 1956	6.15	4,860				
1957	Apr. 3, 1957	3.32	1,080				
	Apr. 20, 1957	3.28	1,030				
	Apr. 26, 1957	3.15	883				
	May 18, 1957	3.60	1,430				
	May 22, 1957	3.40	1,120				
	May 25, 1957	3.40	1,120				
	May 31, 1957	3.12	802				
1958	Dec. 17, 1957	4.07	2,480				
	Mar. 22, 1958	2.70	540				
	July 17, 1958	3.38	1,150				
	July 31, 1958	3.13	811				
	Sept. 10, 1958	3.05	728				
	Sept. 16, 1958	3.24	1,090				
1959	Nov. 16, 1958	2.83	554				
	Nov. 17, 1958	3.18	871				
	Nov. 17, 1958	2.78	523				
1960	Nov. 4, 1959	2.88	587				
	Dec. 27, 1959	3.28	1,000				
	May 6, 1960	3.08	756				
1961	Dec. 10, 1960	2.75	517				
	Mar. 5, 1961	2.83	568				
	Mar. 6, 1961	3.21	936				
	May 7, 1961	4.95	4,780				
	May 8, 1961	2.90	600				
1962	Mar. 4, 1963	2.82	548				
	Sept. 30, 1962	2.84	561				

WHITE RIVER BASIN

7-0647. Fudge Hollow near Licking, Mo.

Location.--Lat 37°31'50", long 91°44'15", in NW¼SW¼ sec.29, T.33 N., R.7 W., at bridge on State Highway 32, 7.5 miles east of junction of U.S. Highway 63 and State Highway 32 in Licking.

Drainage area.--1.72 sq mi. Slope.--68.1 ft per mi.

Gage.--Recording. Datum of gage is 1,157.59 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined at 76 and 607 cfs by indirect measurements. Defined below 10 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	May 21, 1957	4.20	140				
1958	July 25, 1958	4.72	200				
1959	Oct. 9, 1958	3.08	49				
1960	Dec. 17, 1959	3.17	54				
1961	Nov. 15, 1960	3.25	58				
1962	May 8, 1962	3.53	76				
1963	May 25, 1963	3.53	76				
1964	Apr. 5, 1964	3.23	57				
1965	Sept. 4, 1965	6.46	580				

WHITE RIVER BASIN

7-0660. Jacks Fork at Eminence, Mo.

Location.--Lat 37°09'15", long 91°21'30", in W½ sec.26, T.29 N., R.4 W., at bridge on State Highway 19 at Eminence, 1½ miles downstream from Mahans Creek and 8.0 miles upstream from mouth.

Drainage area.--398 sq mi. Slope.--9.50 ft per mi.

Gage.--Nonrecording. Prior to July 27, 1934, at site 1,400 ft upstream at datum 2.11 ft higher. Datum of present gage is 617.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs; shifts in relation occur.

Bankfull stage.--28 ft.

Remarks.--Base for partial-duration series, 3,900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)						
1922	Nov. 19, 1921	7.65	7,240	1940	Apr. 12, 1940	6.5	4,450						
	Mar. 31, 1922	7.07	6,300	1941	Jan. 2, 1941	4.6	1,860						
	Apr. 11, 1922	5.90	4,240										
1923	Jan. 21, 1923	6.30	4,890	1942	Oct. 18, 1941	6.53	4,450						
	Feb. 1, 1923	10.00	12,200	Oct. 31, 1941	8.6	8,050							
	Mar. 12, 1923	6.12	5,070	Apr. 9, 1942	7.59	5,970							
	Mar. 16, 1923	7.83	8,040	May 31, 1942	6.70	4,480							
	May 16, 1923	7.10	6,780	June 18, 1942	6.60	4,330							
	June 13, 1923	6.75	6,260	1943	Dec. 27, 1942	14.50	27,500						
1924	June 21, 1924	4.69	2,970		May 11, 1943	12.60	20,000						
					May 20, 1943	8.09	6,960						
				1925	Apr. 28, 1925	6.10	5,070	1944	May 3, 1944	5.26	2,570		
1926	Oct. 17, 1925	5.65	4,270									1945	Feb. 22, 1945
				Apr. 1, 1927	6.63	5,920	Feb. 26, 1945	11.36	16,100				
				Apr. 14, 1927	8.46	9,350	Mar. 6, 1945	7.02	5,310				
				Apr. 19, 1927	8.69	9,730	Mar. 31, 1945	10.95	14,800				
				May 6, 1927	7.40	7,320	Apr. 2, 1945	7.56	6,450				
				May 25, 1927	6.69	6,090	Apr. 14, 1945	11.5	16,400				
				June 2, 1927	8.80	10,900	June 10, 1945	7.47	6,250				
				Aug. 15, 1927	5.50	4,110	June 17, 1945	10.60	13,600				
				1928	Dec. 14, 1927	11.00	14,200	1946	Feb. 13, 1946	11.7	16,700		
Apr. 6, 1928	8.81	9,920	Mar. 6, 1946		7.93	7,050							
June 9, 1928	8.98	10,300	May 16, 1946		7.03	5,310							
June 13, 1928	16.24	40,000	May 25, 1946		10.20	12,460							
June 21, 1928	6.50	4,700	Aug. 14, 1946		11.50	16,400							
1929	Jan. 25, 1929	8.60	8,360	1947	Nov. 10, 1946	9.1	9,640						
	May 9, 1929	6.12	4,060		Apr. 25, 1947	9.0	9,400						
	May 14, 1929	7.30	5,980	1948	Jan. 1, 1948	8.25	7,670						
	June 13, 1929	7.30	5,980		June 19, 1948	8.85	8,960						
1930	Jan. 14, 1930	7.70	7,420	1949	Jan. 19, 1949	9.1	9,640						
	Feb. 26, 1930	6.05	3,920		Jan. 24, 1949	13.85	24,600						
1931	Oct. 8, 1930	4.80	2,740	Jan. 28, 1949	7.5	6,250							
				Feb. 15, 1949	10.85	14,200							
1932	Jan. 18, 1932	4.70	2,610	Mar. 27, 1949	6.5	4,490							
				May 24, 1949	7.8	6,850							
1933	Apr. 15, 1933	9.70	12,700	June 13, 1949	9.55	10,900							
	May 14, 1933	11.50	17,000	July 8, 1949	8.5	8,300							
1934	Sept. 15, 1934	4.60	1,270	1950	Dec. 22, 1949	6.1	3,900						
1935	Mar. 11, 1935	14.26	26,700		Jan. 4, 1950	13.2	22,300						
					June 3, 1935	9.98	11,800	Jan. 13, 1950	7.0	5,800			
1936	Nov. 10, 1935	5.67	2,620		Feb. 13, 1950	7.0	5,800						
				Apr. 3, 1950	8.8	9,340							
				May 10, 1950	14.5	27,500							
				May 20, 1950	5.9	4,000							
1937	Jan. 8, 1937	7.22	5,220	June 10, 1950	5.9	4,000							
	Jan. 15, 1937	8.34	7,590	1951	Feb. 19, 1951	8.5	8,650						
	May 2, 1937	8.37	7,820		Feb. 21, 1951	7.15	6,160						
1938	Feb. 18, 1938	10.56	13,600		Mar. 12, 1951	6.6	5,120						
	Mar. 29, 1938	8.00	7,100		July 1, 1951	7.0	5,800						
	May 23, 1938	11.03	14,800		July 10, 1951	9.0	9,860						
1939	Jan. 30, 1939	7.38	6,060	1952	Nov. 13, 1951	6.28	4,630						
	Apr. 6, 1939	6.75	4,960		Nov. 24, 1951	6.46	4,950						
	Apr. 17, 1939	11.1	15,100		Mar. 11, 1952	8.59	8,870						

WHITE RIVER BASIN

Peak stages and discharges of Jacks Fork at Eminence, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Dis charge (cfs)
1952	Apr. 5, 1952	6.36	4,790				
	Apr. 13, 1952	8.17	8,030				
1953	Mar. 4, 1953	6.00	4,150				
1954	May 28, 1954	5.5	3,400				
1955	Feb. 20, 1955	6.8	5,460				
	Mar. 21, 1955	12.60	20,500				
1956	May 15, 1956	13.85	24,800				
1957	Apr. 4, 1957	12.70	21,600				
	Apr. 22, 1957	6.95	5,900				
	Apr. 27, 1957	8.58	9,340				
	May 19, 1957	7.12	6,100				
	May 23, 1957	12.00	19,200				
1958	Mar. 24, 1958	10.00	13,000				
	May 5, 1958	5.92	4,000				
	July 17, 1958	9.60	11,900				
1959	Nov. 17, 1958	9.05	10,300				
	Apr. 20, 1959	6.01	4,150				
1960	Dec. 28, 1960	10.00	13,000				
1961	Mar. 6, 1961	7.50	6,900				
	May 7, 1961	12.00	19,200				
1962	Jan. 22, 1962	7.00	5,900				
	Mar. 21, 1962	8.30	8,620				
1963	Oct. 1, 1962	6.90	5,720				
	Mar. 5, 1963	8.00	7,900				
	May 17, 1963	13.45	24,200				
	May 26, 1963	9.50	11,600				
	June 16, 1963	7.60	7,300				
1964	Mar. 10, 1964	8.00	7,900				
	Apr. 6, 1964	9.70	12,200				
1965	Apr. 4, 1965	7.57	7,100				
	Apr. 6, 1965	6.20	4,740				

WHITE RIVER BASIN

7-0665. Current River near Eminence, Mo.

Location.--Lat 37°11'00", long 91°15'30", in SW¼ sec.15, T.29 N., R.3 W., 1 mile downstream from Jacks Fork, 8 miles north-east of Eminence, and at mile 123.0.

Drainage area.--1,272 sq mi. Slope.--7.58 ft per mi.

Gage.--Nonrecording prior to Dec. 8, 1934; recording thereafter. Prior to Oct. 20, 1921, at site 1,200 ft upstream at different datum. Datum of present gage is 568.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurement below 48,000 cfs.

Historical data.--Floodmark for flood in March 1904 was 36 ft above water surface at a point 1 mile upstream from present gage at the time gage in use prior to Oct. 20, 1921, read 1.65 ft.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 19, 1921	14.2	25,800	1944	Apr. 23, 1944	9.97	11,400
	Mar. 31, 1922	11.5	17,800				
	Apr. 17, 1922	11.0	16,400	1945	Feb. 22, 1945	13.20	19,800
1923	Feb. 1, 1923	13.4	23,700		Feb. 26, 1945	14.59	23,700
	Mar. 16, 1923	13.5	24,000		Mar. 7, 1945	12.40	17,700
	May 16, 1923	12.5	21,200		Mar. 31, 1945	16.25	28,800
1924	June 21, 1924	6.4	6,920		Apr. 2, 1945	12.35	17,700
1925	Apr. 28, 1925	7.0	8,000		Apr. 14, 1945	21.23	47,600
1926	Oct. 17, 1925	8.3	10,700		June 10, 1945	14.30	22,800
1927	Apr. 1, 1927	14.1	25,100		June 17, 1945	13.46	20,600
	Apr. 15, 1927	16.0	39,000	1946	Feb. 14, 1946	18.96	39,800
	Apr. 19, 1927	12.1	19,500		Mar. 6, 1946	11.67	16,300
	May 25, 1927	12.0	19,000		May 16, 1946	10.89	14,300
	June 2, 1927	20.0	43,800		May 25, 1946	20.20	44,300
1928	Dec. 14, 1927	15.5	27,900		Aug. 14, 1946	23.95	60,200
	June 9, 1928	24.3	59,400	1947	Nov. 10, 1946	12.00	17,000
	June 13, 1928	21.0	46,900		Apr. 25, 1947	14.7	25,300
1929	Jan. 25, 1929	10.3	13,600	1948	June 19, 1948	10.52	13,400
	May 13, 1929	13.8	21,200	1949	Jan. 19, 1949	12.6	18,800
	June 13, 1929	9.8	12,500		Jan. 25, 1949	20.40	45,000
1930	Jan. 14, 1930	10.2	13,600		Feb. 15, 1949	15.77	28,900
1931	Mar. 8, 1931	6.6	6,250		June 13, 1949	10.6	13,800
1932	Jan. 23, 1932	5.7	4,850		July 8, 1949	11.10	15,000
1933	Apr. 16, 1933	17.9	35,900	1950	Jan. 4, 1950	22.35	53,000
	May 14, 1933	21.4	48,300		Jan. 14, 1950	12.95	20,700
1934	Sept. 15, 1934	5.47	4,760		Apr. 3, 1950	13.23	21,300
1935	Mar. 11, 1935	24.35	59,600		May 10, 1950	20.6	47,300
	June 3, 1935	12.62	19,500		May 12, 1950	12.80	20,100
	June 26, 1935	11.50	16,700		June 10, 1950	13.00	20,700
1936	Nov. 10, 1935	7.27	7,860	1951	Feb. 19, 1951	13.20	21,300
1937	Jan. 15, 1937	13.05	20,500		July 1, 1951	13.47	22,200
	May 3, 1937	13.35	21,600		July 11, 1951	12.90	20,400
1938	Feb. 18, 1938	16.48	31,200		July 13, 1951	14.50	25,300
	Mar. 29, 1938	10.16	13,700	1952	Nov. 24, 1951	9.70	12,500
	May 23, 1938	14.84	25,700		Mar. 11, 1952	12.37	19,000
	July 17, 1938	10.75	15,000		Apr. 13, 1952	12.92	20,400
1939	Apr. 17, 1939	19.43	41,100	1953	Mar. 4, 1953	7.29	7,790
1940	Apr. 17, 1940	8.64	9,790				
1941	Apr. 17, 1941	5.11	4,210	1954	May 28, 1954	7.00	7,250
1942	Nov. 1, 1941	9.70	11,100	1955	Mar. 21, 1955	17.30	35,000
1943	Dec. 27, 1942	26.97	75,100	1956	May 15, 1956	23.27	58,400
	May 11, 1943	21.49	48,800	1957	Apr. 4, 1957	20.97	48,900
	May 19, 1943	14.56	23,400		Apr. 22, 1957	13.47	22,200
					Apr. 27, 1957	13.05	20,700
					May 11, 1957	9.62	12,300
					May 19, 1957	10.55	14,500
					May 23, 1957	17.32	35,000
					May 26, 1957	12.70	19,900
				1958	Dec. 17, 1957	13.30	21,600
					Mar. 24, 1958	15.91	30,100
				1959	Nov. 17, 1958	11.14	15,700

WHITE RIVER BASIN

Peak stages and discharges of Current River near Eminence, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1960	Dec. 28, 1959	16.57	32,500				
1961	Mar. 7, 1961	10.84	15,000				
	May 8, 1961	19.55	43,500				
1962	Mar. 21, 1962	12.10	18,200				
1963	May 17, 1963	14.13	24,000				
	May 26, 1963	14.20	24,300				
1964	Mar. 10, 1964	11.88	17,700				
	Apr. 6, 1964	15.62	29,000				
1965	Apr. 6, 1965	8.96	11,000				

WHITE RIVER BASIN

7-0668. Sycamore Creek near Winona, Mo.

Location.--Lat 37°02'45", long 91°19'30", in S½W¼ sec.31, T.28 N., R.3 W., on left bank just upstream from culvert under State Highway 19, about 3 miles north of Winona.

Drainage area.--0.88 sq mi. Slope.--66.4 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Apr. 14, 1964.

Stage-discharge relation.--Defined at 136, 308, and 740 cfs by indirect measurements. Defined below 36 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	6.21	308				
1956	May 14, 1956	6.27	310				
1957	May 11, 1957	6.61	360				
1958	Mar. 23, 1958	3.72	65				
1959		(a)	(b)				
1960	Oct. 4, 1959	5.14	170				
1961	May 7, 1961	4.80	134				
1962	Jan. 22, 1962	4.56	115				
1963	May 25, 1963	4.00	105				
1964	Mar. 10, 1964	4.26	120				
1965	Apr. 3, 1965	3.67	77				

a Stage below bottom of gage.

b Discharge less than 45 cfs.

WHITE RIVER BASIN

7-0670. Current River at Van Buren, Mo.

Location.--Lat 36°59'30", long 91°00'55", in NE¼NW¼ sec.25, T.27 N., R.1 W., at downstream side of bridge on U. S. Highway 60 in Van Buren, 0.4 mile downstream from Pike Creek, 4.7 miles upstream from Big Spring, and at mile 90.4.

Drainage area.--1,667 sq mi. Slope.--5.92 ft per mi.

Gage.--Nonrecording prior to Oct. 19, 1934; recording thereafter. Prior to Sept. 1, 1926, at site 100 ft downstream at different datum; Sept. 1, 1926, to Oct. 1, 1939, at present site at datum 3.00 ft higher. Datum of present gage is 442.78 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 62,000 cfs; shifts in relation occur.

Bankfull stage.--20 ft.

Historical data.--Flood of Mar. 26, 1904, reached a stage of 29.0 ft and that of Aug. 21, 1915, a stage of 25.9 ft as determined by State Highway Commission from several reliable high-water marks in vicinity of gage. Investigations by J. C. Lester, Project Engineer, State Highway Commission, led to the conclusion that the discharge of the flood in 1904 was less than that in 1915. At points upstream and downstream from the gage, the 1904 flood crest was the lower of the two floods.

Remarks.--Peak discharges prior to June 1, 1921, from records of Prof. T. J. Rodhouse, University of Missouri (based on stages measured from a reference point). Base for partial-duration series, 14,000 cfs. Only annual peaks are shown prior to 1922.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 26, 1904	29.0	-	1933	Apr. 16, 1933 May 14, 1933	17.01 19.7	40,900 56,000
1913	Mar. 26, 1913	-	11,500	1934	Sept. 15, 1934	8.12	5,720
1914	Apr. 29, 1914	-	36,000	1935	Mar. 11, 1935 June 3, 1935 June 27, 1935	22.84 12.53 11.50	86,600 19,200 15,500
1915	Aug. 21, 1915	25.9	125,000	1936	Nov. 11, 1935	8.23	6,800
1916	Jan. 31, 1916	-	85,000	1937	Jan. 15, 1937 May 3, 1937	13.00 12.86	25,100 24,500
1917	Apr. 8, 1917	-	11,800	1938	Feb. 19, 1938 May 24, 1938 July 18, 1938	15.66 13.38 11.36	37,700 26,820 17,900
1918	May 12, 1918	-	29,000	1939	Apr. 18, 1939	17.09	45,400
1919	June 4, 1919	-	16,000	1940	Apr. 19, 1940	9.57	12,000
1920	Mar. 26, 1920	-	22,900	1941	Apr. 18, 1941	6.47	4,700
1921	Apr. 28, 1921	-	22,200	1942	Nov. 1, 1941	10.38	14,800
1922	Nov. 20, 1921 Apr. 1, 1922 Apr. 18, 1922	13.2 12.0 11.5	22,100 17,600 15,600	1943	Dec. 28, 1942 May 11, 1943 May 19, 1943	21.66 19.01 13.57	77,000 57,100 25,100
1923	Feb. 2, 1923 Mar. 17, 1923 May 17, 1923	13.2 13.0 12.8	21,800 21,000 20,200	1944	Apr. 23, 1944	13.11	22,800
1924	May 31, 1924	9.7	9,500	1945	Feb. 22, 1945 Feb. 26, 1945 Mar. 7, 1945 Mar. 31, 1945 Apr. 15, 1945 June 10, 1945 June 18, 1945	12.72 14.82 12.69 16.30 19.5 13.73 13.56	21,200 31,100 21,100 39,500 60,600 25,600 25,100
1925	Apr. 29, 1925	8.2	5,800	1946	Feb. 14, 1946 Mar. 7, 1946 May 17, 1946 May 26, 1946 Aug. 15, 1946	17.14 11.66 11.16 18.26 20.74	44,400 17,300 15,300 52,300 69,400
1926	Oct. 17, 1925	9.67	9,500	1947	Nov. 11, 1946 Apr. 26, 1947	14.42 14.53	29,000 29,500
1927	Apr. 1, 1927 Apr. 15, 1927 May 26, 1927 June 2, 1927	14.48 16.10 13.02 16.22	27,400 34,500 21,200 35,000	1948	Jan. 2, 1948	12.52	19,900
1928	Dec. 14, 1927 Apr. 7, 1928 Apr. 22, 1928 June 10, 1928 June 13, 1928 June 22, 1928	15.34 12.56 12.25 19.45 18.59 12.40	31,000 19,400 18,300 49,300 45,700 18,800	1949	Jan. 19, 1949 Jan. 25, 1949 Jan. 28, 1949 Feb. 16, 1949	12.6 19.26 11.7 14.9	20,700 59,200 17,300 31,600
1929	Jan. 25, 1929 Apr. 10, 1929 May 7, 1929 May 9, 1929 May 13, 1929 June 13, 1929	11.12 11.29 12.20 11.08 13.48 12.21	14,100 14,800 18,100 14,100 23,100 18,100	1950	Jan. 5, 1950 Jan. 14, 1950	19.90 12.75	61,500 21,600
1930	Jan. 15, 1930	13.32	22,300				
1931	Mar. 8, 1931	9.80	11,000				
1932	Jan. 23, 1932	8.76	7,560				

WHITE RIVER BASIN

Peak stages and discharges of Current River at Van Buren, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Feb. 13, 1950	10.79	15,600	1951	Feb. 19, 1951	12.95	22,700
	Apr. 4, 1950	13.95	26,800		July 1, 1951	11.92	18,600
	May 11, 1950	19.26	56,900		July 11, 1951	13.42	24,300
	June 11, 1950	13.31	23,900		July 14, 1951	13.17	23,500
1952	Nov. 24, 1951	11.28	16,600	1953	Mar. 4, 1953	8.34	8,240
	Mar. 12, 1952	12.44	20,400		May 2, 1954	9.28	10,600
	Apr. 13, 1952	12.44	20,400	1955	Mar. 21, 1955	15.56	34,300
1956	May 16, 1956	19.34	56,900		May 16, 1956	19.34	56,900
	Apr. 4, 1957	19.12	51,000		Apr. 4, 1957	19.12	51,000
	Apr. 22, 1957	13.30	23,100	1957	Apr. 22, 1957	13.30	23,100
1958	Apr. 28, 1957	13.15	22,700		Apr. 28, 1957	13.15	22,700
	May 11, 1957	11.86	18,000		May 11, 1957	11.86	18,000
	May 20, 1957	10.70	14,200	1958	May 20, 1957	10.70	14,200
	May 24, 1957	16.45	36,600		May 24, 1957	16.45	36,600
1959	Dec. 18, 1957	12.97	21,900		Dec. 18, 1957	12.97	21,900
	Mar. 24, 1958	16.40	36,600	1960	Mar. 24, 1958	16.40	36,600
1961	Nov. 18, 1958	11.98	18,300		Nov. 18, 1958	11.98	18,300
	Dec. 28, 1959	14.30	27,100	1962	Dec. 28, 1959	14.30	27,100
1963	Mar. 7, 1961	11.45	16,300		Mar. 7, 1961	11.45	16,300
	May 8, 1961	17.90	44,400		May 8, 1961	17.90	44,400
	July 20, 1961	10.96	14,400	1964	July 20, 1961	10.96	14,400
1965	Mar. 21, 1962	12.27	19,300		Mar. 21, 1962	12.27	19,300
	May 18, 1963	12.25	19,000	1965	May 18, 1963	12.25	19,000
1966	May 27, 1963	13.80	25,100		May 27, 1963	13.80	25,100
	Mar. 10, 1964	12.70	21,400	1967	Mar. 10, 1964	12.70	21,400
	Apr. 6, 1964	13.90	25,600		Apr. 6, 1964	13.90	25,600
1968	Apr. 7, 1965	9.03	10,300		Apr. 7, 1965	9.03	10,300

WHITE RIVER BASIN

7-0680. Current River at Doniphan, Mo.

Location.--Lat 36°37'25", long 90°50'55", in NW¼ sec. 27, T.23 N., R.2 E., half a mile upstream from U. S. Highway 160, 1 mile west of Doniphan, 2½ miles upstream from Briar Creek, and at mile 51.3.

Drainage area.--2,038 sq mi. Slope.--4.75 ft per mi.

Gage.--Nonrecording prior to July 2, 1936; recording thereafter. Prior to May 22, 1928 at site 2,700 ft downstream at datum 0.06 ft higher; May 22, 1928, to Sept. 30, 1929, at site 2,800 ft downstream at datum 0.07 ft lower; Oct. 1, 1929, to Sept. 30, 1932, at site 2,800 ft downstream at datum 1.07 ft lower; Oct. 1, 1932, to July 2, 1936, at site 2,800 ft downstream at datum 3.07 ft lower. Datum of present gage is 322.21 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Peaks for 1919-21 computed from plotted Corps of Engineer gage readings. Base for partial-duration series, 14,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	23.4	130,000	1938	Feb. 19, 1938	15.72	43,100
1915	August 1915	22.2	105,000		Mar. 31, 1938	10.26	15,500
					May 25, 1938	11.74	20,100
1919	June 5, 1919	10.0	19,400	1939	Mar. 5, 1939	10.10	14,900
1920	Mar. 27, 1920	10.1	19,700		Apr. 18, 1939	16.41	49,300
1921	Mar. 26, 1921	9.8	18,800	1940	Apr. 20, 1940	9.02	12,500
	Apr. 27, 1921	14.3	35,400	1941	Jan. 3, 1941	5.00	5,110
1922	Nov. 21, 1921	11.10	21,000	1942	Nov. 2, 1941	9.89	15,400
	Apr. 1, 1922	11.50	22,000		Apr. 9, 1942	9.80	15,100
1923	Feb. 3, 1923	13.00	29,600	1943	Dec. 29, 1942	19.13	63,600
	Mar. 17, 1923	11.02	20,800		May 12, 1943	18.06	55,400
	May 17, 1923	11.22	21,300		May 20, 1943	12.65	24,100
1924	May 31, 1924	5.48	8,300	1944	Apr. 24, 1944	11.70	20,300
1925	June 13, 1925	4.50	6,540	1945	Feb. 27, 1945	15.11	35,200
1926	Oct. 18, 1925	6.50	10,300		Mar. 8, 1945	11.92	21,000
1927	Apr. 7, 1927	12.55	28,600		Apr. 1, 1945	15.65	38,000
	Apr. 15, 1927	17.30	48,800		Apr. 16, 1945	19.05	62,800
	Apr. 20, 1927	12.58	28,600		June 11, 1945	14.10	30,200
	May 27, 1927	9.45	17,600		June 19, 1945	13.40	27,000
	June 2, 1927	15.98	43,000	1946	Feb. 15, 1946	15.70	38,600
1928	Dec. 15, 1927	14.80	37,600		Mar. 8, 1946	9.75	15,600
	Apr. 7, 1928	9.35	17,600		May 18, 1946	9.3	14,300
	Apr. 23, 1928	10.33	20,400		May 26, 1946	16.71	44,900
	June 10, 1928	15.94	42,600		Aug. 16, 1946	17.46	50,600
	June 14, 1928	15.98	43,000	1947	Nov. 12, 1946	11.80	20,600
	June 23, 1928	10.42	20,700		Apr. 27, 1947	13.2	26,800
1929	Jan. 26, 1929	9.55	18,200	1948	Jan. 2, 1948	11.50	20,600
	Apr. 11, 1929	8.84	16,000	1949	Jan. 20, 1949	10.8	18,400
	May 8, 1929	9.60	18,200		Jan. 26, 1949	18.3	57,000
	May 14, 1929	12.40	27,800		Jan. 29, 1949	10.8	18,400
	June 14, 1929	8.60	15,500		Feb. 16, 1949	13.5	28,000
1930	Jan. 15, 1930	12.10	25,500		Mar. 27, 1949	9.3	14,700
1931	Mar. 9, 1931	6.95	9,500	1950	Jan. 5, 1950	18.0	54,600
1932	Jan. 24, 1932	6.41	8,300		Jan. 15, 1950	10.82	18,400
1933	Jan. 22, 1933	11.20	14,500		Feb. 15, 1950	9.2	14,500
	Apr. 17, 1933	17.65	35,200		Apr. 5, 1950	14.7	33,500
	May 15, 1933	19.93	49,000		May 11, 1950	18.2	56,200
1934	Sept. 16, 1934	6.63	6,210		June 12, 1950	11.3	20,000
1935	Mar. 12, 1935	23.89	94,400	1951	Feb. 20, 1951	12.11	23,700
	June 4, 1935	13.47	20,200		July 2, 1951	10.20	17,700
1936	Nov. 11, 1936	7.45	7,400		July 11, 1951	12.26	24,400
1937	Jan. 14, 1937	16.28	48,400		July 15, 1951	10.90	19,700
	May 4, 1937	12.28	22,400	1952	Nov. 25, 1951	10.46	18,600
					Mar. 12, 1952	11.73	22,200
					Apr. 14, 1952	11.22	20,600
				1953	Mar. 5, 1953	6.23	8,530

WHITE RIVER BASIN

Peak stages and discharges of Current River at Doniphan, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 3, 1954	6.68	9,530				
1955	Mar. 22, 1955	13.88	30,900				
1956	May 16, 1956	17.17	49,000				
1957	Apr. 5, 1957	17.98	54,600				
	Apr. 23, 1957	12.20	24,000				
	Apr. 29, 1957	12.55	25,500				
	May 12, 1957	9.50	15,900				
	May 24, 1957	15.20	37,000				
1958	Dec. 19, 1957	10.80	19,400				
	Mar. 25, 1958	15.72	39,600				
	May 5, 1958	10.66	19,100				
1959	Nov. 17, 1958	13.38	28,700				
1960	Dec. 29, 1959	11.63	21,900				
1961	Mar. 8, 1961	9.40	15,600				
	May 9, 1961	17.00	47,600				
1962	Mar. 22, 1962	10.50	18,600				
1963	May 19, 1963	9.21	15,200				
	May 28, 1963	12.64	25,500				
1964	Mar. 10, 1964	13.71	30,100				
	Apr. 7, 1964	12.10	23,800				
1965	Apr. 8, 1965	6.93	10,700				

a Annual peak only.

WHITE RIVER BASIN

7-0682. North Prong Little Black River at Hunter, Mo.

Location.--Lat 36°53'25", long 90°50'30", in NE¼SE¼ sec.21, T.26 N., R.2 E., on right bank just upstream from culvert under State Highway 21, at junction of Highways 21 and E, at Hunter.

Drainage area.--1.23 sq mi. Slope.--61.7 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Mar. 26, 1964.

Stage-discharge relation.--Defined at 98, 250, 427, and 626 cfs by indirect measurements. Defined below 3 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	May 4, 1958	13.92	427				
1959	Nov. 16, 1958	15.33	626				
1960	Oct. 13, 1959	10.5	45				
1961	May 7, 1961	14.59	502				
1962	June 23, 1962	11.64	150				
1963	Mar. 15, 1963	12.09	200				
1964	Mar. 9, 1964	12.47	242				
1965	Mar. 29, 1965	11.70	155				

WHITE RIVER BASIN

7-0685. Little Black River near Fairdealing, Mo.

Location.--Lat 36°39'40", long 90°34'25", in NW¼NW¼ sec.7, T.23 N., R.5 E., at bridge on State Highway 14, 2½ miles downstream from Beaverdam Creek and 2½ miles east of Fairdealing.

Drainage area.--187 sq mi. Slope.--10.8 ft per mi.

Gage.--Nonrecording Feb. 27, 1936, to Sept. 30, 1942; crest-stage gage since Oct. 26, 1954. Prior to Oct. 1, 1939, at site 100 ft upstream at datum 1.5 ft higher. Datum of gage is 297.15 ft above mean sea level, datum of 1929. Gage heights given herein converted to present gage.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs and by contracted opening measurement at 29,600 cfs.

Bankfull stage.--13 ft.

Remarks.--Peaks for period prior to Oct. 1, 1939, computed from plotted Corps of Engineers gage readings. Base for partial-duration series, 4,000 cfs. Only annual peaks are shown subsequent to 1954.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Apr. 6, 1936	18.6	5,230				
	Sept. 2, 1936	19.5	6,750				
1937	Nov. 3, 1936	19.3	6,410				
	Dec. 31, 1936	18.9	5,730				
	Jan. 15, 1937	22.5	13,600				
1938	Feb. 18, 1938	21.4	10,400				
	Mar. 29, 1938	20.3	8,190				
1939	Jan. 30, 1939	19.5	6,750				
	Mar. 5, 1939	19.1	6,070				
	Apr. 17, 1939	19.9	7,470				
1940	Apr. 12, 1940	18.12	4,220				
1941	Jan. 25, 1941	9.7	825				
1942	Apr. 9, 1942	20.0	6,270				
1955	May 20, 1955	19.31	5,430				
1956	Feb. 18, 1956	17.96	4,130				
1957	May 23, 1957	22.16	40,000				
1958	Mar. 24, 1958	20.08	6,400				
1959	Nov. 17, 1958	19.28	5,100				
1960	May 6, 1960	16.40	2,600				
1961	May 7, 1961	21.28	18,000				
1962	Apr. 11, 1962	16.81	3,000				
1963	Mar. 16, 1963	18.43	4,400				
1964	Mar. 9, 1964	21.84	29,600				
1965	Apr. 3, 1965	15.12	2,300				

WHITE RIVER BASIN

7-0691. Adams Branch near West Plains, Mo.

Location.--Lat 36°41'35", long 91°48'06", in SE¼NW¼ sec.1, T.23 N., R.8 W., on left bank just upstream from culvert under U.S. Highway 63, 4 miles southeast of West Plains.

Drainage area.--2.27 sq mi. Slope.--44.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 153, 222, 249, 515, and 1,040 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 20, 1955	3.97	222				
1956	May 14, 1956	4.59	350				
1957	Apr. 3, 1957	4.23	270				
1958	July 12, 1958	6.23	1,040				
1959	Nov. 16, 1958	4.80	480				
1960	Dec. 27, 1959	4.37	350				
1961	June 8, 1961	5.02	520				
1962	Jan. 21, 1962	4.36	350				
1963	June 14, 1963	6.16	515				
1964	June 12, 1964	4.89	315				
1965	Sept. 22, 1965	4.1	200				

WHITE RIVER BASIN

7-0700. Kings Creek near Willow Springs, Mo.

Location.--Lat 36°58'15", long 91°55'40", in NW¼SW¼ sec.34, T.27 N., R.9 W., at bridge on U.S. Highway 60, 0.5 mile upstream from Eleven Point River and 2½ miles southeast of Willow Springs.

Drainage area.--4.91 sq mi. Slope.--45.0 ft per mi.

Gage.--Recording.

Stage-discharge relation.--Defined at 568 and 666 cfs by indirect measurements. Defined below 50 cfs by current-meter measurements.

Remarks.--Base for partial-duration series 200 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	May 4, 1956	8.90	568				
1957	Apr. 3, 1957	7.70	316				
	Apr. 20, 1957	7.57	290				
	Apr. 26, 1957	7.57	290				
	May 21, 1957	8.27	424				
	May 22, 1957	7.52	281				
1958	July 17, 1958	8.15	403				
1959	Nov. 17, 1958	6.98	204				
1960	Dec. 27, 1959	6.47	135				
1961	May 7, 1961	5.91	76				
1962	Mar. 20, 1962	5.60	52				
1963	May 16, 1963	8.22	413				
1964	Apr. 5, 1964	7.34	666				
1965	Apr. 3, 1965	4.85	90				

WHITE RIVER BASIN

7-0702. Burnham Branch near Willow Springs, Mo.

Location.--Lat 36°56'00", long 91°56'00", in NW¼NE¼ sec.16, T.26 N., R.9 W., on right bank 10 ft upstream from culvert under U.S. Highway 63, 4½ miles southeast of Willow Springs.

Drainage area.--1.27 sq mi. Slope.--58.6 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 206, 259, and 620 cfs by indirect measurements.

Remarks.--Only annual peaks are shown. Gage installed upstream from culvert on Nov. 2, 1959 and used as reference gage subsequent to that date. Prior to Aug. 1959 gage on downstream wingwall used as reference gage.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 1955	9.58	206				
1956	May 1956	11.96	288				
1957	May 1957	12.15	295				
1958	July 17, 1958	12.63	312				
1959	Nov. 17, 1958	9.26	194				
1960	Dec. 27, 1959	11.73	155				
1961		(a)	(b)				
1962	May 25, 1962	9.94	(b)				
1963	June 16, 1963	16.16	620				
1964	May 11, 1964	12.50	220				
1965		(a)	(b)				

a Stage below bottom of gage.

b Discharge less than 60 cfs.

WHITE RIVER BASIN

7-0705. Eleven Point River near Thomasville, Mo.

Location.--Lat 36°47'05", long 91°29'30", in NE¼NE¼ sec.3, T.24 N., R.5 W., on left bank attached to bluff at end of Grandpappy Ridge, 500 ft upstream from Posy Spring, 1½ miles downstream from Barren Fork, and 2½ miles east of Thomasville.

Drainage area.--361 sq mi. Slope.--13.7 ft per mi.

Gage.--Recording. Altitude of gage is 610 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,400 cfs, and by slope-area measurements at 6,850 and 16,900 cfs.

Bankfull stage.--7 ft.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Feb. 18, 1951	9.93	3,790	1952	Oct. 23, 1951	7.68	2,370
	Feb. 20, 1951	8.33	2,740		Nov. 24, 1951	11.75	5,170
	July 10, 1951	10.60	4,280		Mar. 10, 1952	9.63	3,580
1952					Apr. 13, 1952	7.30	2,130
	Apr. 18, 1953	6.30	1,660	1954	Mar. 24, 1954	8.36	2,800
	Mar. 24, 1954	8.36	2,800		Apr. 15, 1954	11.85	5,170
	Apr. 15, 1954	11.85	5,170		May 2, 1954	12.15	5,480
1955	Feb. 20, 1955	7.10	2,010	1955	Feb. 20, 1955	7.10	2,010
	Mar. 21, 1955	13.8	6,850		Mar. 21, 1955	13.8	6,850
1956	May 15, 1956	11.10	4,640	1957	Apr. 3, 1957	17.95	16,900
1957	Apr. 3, 1957	17.95	16,900		Apr. 22, 1957	8.96	3,110
	Apr. 22, 1957	8.96	3,110		Apr. 25, 1957	7.70	2,260
	Apr. 25, 1957	7.70	2,260		Apr. 27, 1957	7.78	2,320
	Apr. 27, 1957	7.78	2,320		May 22, 1957	8.25	2,580
	May 22, 1957	8.25	2,580		May 23, 1957	11.26	4,800
	May 23, 1957	11.26	4,800		May 25, 1957	7.68	2,260
	May 25, 1957	7.68	2,260	1958	Mar. 24, 1958	10.42	4,140
1958	Mar. 24, 1958	10.42	4,140		May 5, 1958	12.32	5,560
	May 5, 1958	12.32	5,560		July 12, 1958	7.26	2,130
	July 12, 1958	7.26	2,130		July 17, 1958	7.85	2,430
1959	Nov. 15, 1958	6.88	1,900	1960	Oct. 5, 1959	7.65	2,310
	Nov. 16, 1958	16.40	11,400		Oct. 13, 1959	8.18	2,670
1960	Oct. 5, 1959	7.65	2,310		Dec. 28, 1959	11.60	5,020
	Oct. 13, 1959	8.18	2,670		May 6, 1960	7.20	2,070
	Dec. 28, 1959	11.60	5,020	1961	May 7, 1961	15.45	9,050
	May 6, 1960	7.20	2,070		Jan. 22, 1962	9.70	3,650
1961	May 7, 1961	15.45	9,050	1963	May 17, 1963	7.94	2,490
1962	Jan. 22, 1962	9.70	3,650		June 16, 1963	11.80	5,170
1964	May 17, 1963	7.94	2,490	1964	Mar. 9, 1964	12.55	5,800
	June 16, 1963	11.80	5,170		Apr. 6, 1964	7.68	2,260
	Mar. 9, 1964	12.55	5,800		Apr. 24, 1964	8.49	2,780
1965	Apr. 6, 1964	7.68	2,260	1965	Sept. 22, 1965	4.05	570
	Apr. 24, 1964	8.49	2,780				

WHITE RIVER BASIN

7-0715. Eleven Point River near Bardley, Mo.

Location.--Lat 36°38'55", long 91°12'03", in NE¼SE¼ sec.17, T.23 N., R.2 W., at bridge on U. S. Highway 160, 7 miles southwest of Bardley and 7½ miles upstream from Fredericks Fork.

Drainage area.--793 sq mi. Slope.--10.1 ft per mi.

Gage.--Nonrecording prior to Oct. 20, 1939; recording thereafter. Datum of gage is 410.84 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	19.7	44,000	1943	Nov. 18, 1942	6.86	4,620
					Nov. 22, 1942	6.56	4,230
1922	Mar. 31, 1922	10.0	7,560		Dec. 28, 1942	14.10	22,200
					May 11, 1943	15.18	25,800
1923	Feb. 2, 1923	10.1	7,600				
	Mar. 12, 1923	7.2	4,400	1944	Apr. 23, 1944	8.36	6,840
	Mar. 16, 1923	10.6	9,450		May 3, 1944	8.12	6,360
	May 15, 1923	8.8	6,120				
	June 11, 1923	8.1	5,350	1945	Feb. 27, 1945	-	b15,000
1924	Aug. 10, 1924	3.9	1,680		Mar. 3, 1945	-	b4,000
					Mar. 7, 1945	-	b7,200
1925	June 13, 1925	7.2	4,400		Mar. 20, 1945	-	b6,900
					Mar. 31, 1945	15.5	27,200
1926	Nov. 8, 1925	5.1	2,490		Apr. 15, 1945	13.6	20,360
					June 11, 1945	10.01	9,600
					June 18, 1945	8.32	6,680
1927	Apr. 14, 1927	18.7	40,000				
	Apr. 19, 1927	11.6	11,400	1946	Jan. 9, 1946	7.30	5,280
	May 5, 1927	10.0	8,640		Feb. 14, 1946	10.88	11,400
	June 1, 1927	10.2	8,960		Mar. 6, 1946	8.21	6,570
	June 21, 1927	8.2	6,040		May 17, 1946	7.07	5,010
1928	Dec. 14, 1927	15.0	18,700		May 25, 1946	9.30	8,330
	Apr. 6, 1928	11.6	11,400		Aug. 14, 1946	7.42	5,420
	Apr. 21, 1928	9.3	7,560	1947	Dec. 12, 1946	5.50	3,100
	June 13, 1928	15.6	27,200				
	June 21, 1928	7.8	5,560	1948	Jan. 1, 1948	7.75	5,980
1929	Jan. 25, 1929	9.5	8,000		June 19, 1948	9.54	8,680
	Feb. 26, 1929	6.9	4,480	1949	Jan. 18, 1949	6.9	4,750
	Apr. 9, 1929	7.3	4,960		Jan. 24, 1949	16.7	33,200
1930	Jan. 13, 1930	8.0	5,800		Jan. 28, 1949	8.3	6,700
					Feb. 14, 1949	7.1	5,010
1931	Aug. 6, 1931	5.2	2,640		Feb. 16, 1949	8.6	7,180
				1950	Jan. 4, 1950	12.80	16,200
1932	Jan. 23, 24, 1932	3.6	1,280		Feb. 13, 1950	8.67	7,340
					May 11, 1950	9.55	8,860
1933	Apr. 16, 1933	10.9	10,100		May 30, 1950	7.22	5,140
	May 14, 1933	9.5	8,000		June 3, 1950	8.20	6,570
1934	Sept. 15, 1934	3.5	1,190	1951	Feb. 21, 1951	8.50	7,020
					July 11, 1951	8.00	6,270
1935	Mar. 12, 1935	13.7	20,200				
	June 3, 1935	9.5	7,840	1952	Nov. 24, 1951	9.66	9,040
	June 17, 1935	7.8	5,560		Mar. 11, 1952	9.16	8,160
					Apr. 13, 1952	6.41	4,120
1936	Dec. 8, 1935	3.1	900	1953	Apr. 18, 1953	4.90	2,530
1937	Jan. 14, 1937	13.9	20,900	1954	Apr. 16, 1954	8.66	7,340
					May 2, 1954	10.60	10,800
1938	Feb. 19, 1938	10.0	9,100				
	Mar. 29, 1938	9.3	7,640	1955	Mar. 21, 1955	11.23	12,000
	May 24, 1938	8.1	5,880				
1939	Mar. 5, 1939	8.4	6,670	1956	May 16, 1956	7.37	5,420
	Apr. 17, 1939	13.9	20,900	1957	Apr. 4, 1957	15.76	28,600
1940	Apr. 12, 1940	8.3	6,530		Apr. 22, 1957	6.64	4,360
					Apr. 28, 1957	8.25	6,570
1941	Apr. 4, 1941	3.4	976		May 11, 1957	7.80	5,980
					May 23, 1957	10.38	10,400
1942	Oct. 31, 1941	10.1	9,830		May 25, 1957	8.60	7,180
	Apr. 8, 1942	7.7	5,750	1958	Mar. 24, 1958	10.15	9,980
	May 31, 1942	15.7	28,300		May 3, 1958	6.64	4,360
					May 5, 1958	10.35	10,400

WHITE RIVER BASIN

Peak stages and discharges of Eleven Point River near Bardley, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1959	Nov. 17, 1958	16.10	30,100				
1960	Dec. 28, 1959	7.41	5,420				
1961	May 7, 1961	12.80	16,200				
1962	Jan. 22, 1962	6.63	4,400				
	Feb. 26, 1962	8.30	6,720				
1963	June 17, 1963	7.94	6,120				
	July 5, 1963	6.57	4,400				
1964	Mar. 9, 1964	12.81	16,200				
	June 17, 1964	11.25	12,000				
1965	Apr. 16, 1965	3.85	1,750				

a Annual peak only.

b Estimated on basis of records for station near Ravendon Springs, Ark.

WHITE RIVER BASIN

7-0718. Williams Spring Branch near Alton, Mo.

Location.--Lat 36°40'35", long 91°20'10", in SE¼SW¼ sec.6, T.23 N., R.3 W., on right bank just upstream from bridge on U.S. Highway 160 and 4 miles east of Alton.

Drainage area.--4.24 sq mi. Slope.--63.3 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 168, 224, and 1,350 cfs by indirect measurements. Defined at 184 cfs by current-meter measurement.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 20, 1955	12.61	224				
1956	June 15, 1956	12.17	185				
1957	May 22, 1957	14.04	600				
1958	Nov. 7, 1957	12.60	224				
1959	Nov. 16, 1958	15.43	1,350				
1960	May 6, 1960	12.32	195				
1961	May 7, 1961	15.31	1,200				
1962		(a)	(b)				
1963	Mar. 4, 1963	12.55	215				
1964	June 18, 1964	13.55	460				
1965		(a)	(b)				

a Stage below bottom of gage.

b Discharge less than 125 cfs.

ARKANSAS RIVER BASIN

7-1855. Stahl Creek near Miller, Mo.

Location.--Lat 37°11'40", long 93°50'40", in SE¼ sec.26, T.29 N., R.27 W., on downstream side of left abutment of bridge on State Highway 39, 1½ miles south of Miller and 6.4 miles upstream from mouth.

Drainage area.--3.86 sq mi. Slope.--41.3 ft per mi.

Gage.--Recording. Datum of gage is 1,184 ft above mean sea level, datum of 1929 (State Highway Commission bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 730 cfs.

Bankfull stage.--4 ft.

Remarks.--Base for partial-duration series, 150 cfs. Only annual peaks are shown subsequent to 1959.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 3, 1950	3.78	195	1952	Nov. 15, 1951	4.00	232
	Feb. 20, 1951	3.94	224		Feb. 1, 1952	4.66	363
	June 22, 1951	3.85	206				
	July 4, 1951	6.18	904				
1953	Mar. 14, 1953	3.38	133	1954	Sept. 29, 1954	4.08	250
1955	Oct. 11, 1954	4.41	308	1956	May 31, 1956	3.54	157
	Oct. 21, 1954	4.18	269		June 7, 1956	5.87	745
	Oct. 25, 1954	5.15	497				
	Feb. 19, 1955	4.56	176				
	Mar. 20, 1955	3.71	184				
	June 5, 1955	4.27	278				
1957	May 22, 1957	5.36	560	1958	July 7, 1958	6.40	1,010
	May 30, 1957	4.60	344		July 17, 1958	4.80	396
	June 13, 1957	4.91	424				
	July 1, 1957	6.24	929				
1959	Feb. 9, 1959	4.43	308	1960	Oct. 4, 1959	6.75	1,150
1961	July 7, 1961	7.25	1,430	1962	June 10, 1962	5.08	482
1963	May 13, 1963	6.40	1,000	1964	June 11, 1964	7.27	1,440
1965	Apr. 3, 1965	5.43	593				

ARKANSAS RIVER BASIN

7-1856. South Fork Stahl Creek near Miller, Mo.

Location.--Lat 37°11'15", long 93°50'25", in NE¼NE¼ sec.35, T.29 N., R.27 W., on left bank just upstream from culvert on Highway 39, about 600 feet south of junction with Highway 66, about one-half mile above mouth, 2 miles south of Miller, and 6 miles north of Mt. Vernon.

Drainage area.--0.94 sq mi. Slope.--66.7 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 140, 180, 380, and 816 cfs by indirect measurements. Defined below 4 cfs by current-meter measurements.

Remarks.--Only annual peaks are shown. Gage on upstream wingwall used as reference gage prior to Oct. 1, 1963.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 4, 1951	2.34	90				
1952	Feb. 1, 1952	1.82	54				
1953		(a)	(b)				
1954	Sept. 29, 1954	1.82	54				
1955	Feb. 19, 1955	3.18	180				
1956	June 7, 1956	4.38	380				
1957	July 1, 1957	3.77	260				
1958	July 16, 1958	3.05	160				
1959	Apr. 18, 1959	3.59	240				
1960	Oct. 4, 1959	3.92	295				
1961	July 7, 1961	4.40	385				
1962		(a)	(b)				
1963	June 15, 1963	3.29	200				
1964	June 11, 1964	7.08	818				
1965	Apr. 3, 1965	2.78	135				

a Stage below bottom of gage.

b Discharge less than 30 cfs.

ARKANSAS RIVER BASIN

7-1857. Spring River at Larussell, Mo.

Location.--Lat 37°09'15", long 94°03'20", in SW¼SW¼ sec.12, T.28 N., R.29 W., on right bank on upstream side of Bower Mills Bridge, three-quarters of a mile north of Larussell, and 2½ miles upstream from Cave Spring Branch.

Drainage area.--306 sq mi. Slope.--9.84 ft per mi.

Gage.--Nonrecording prior to Oct. 18, 1961; recording thereafter. Altitude of gage is 1,030 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1958	Mar. 24, 1958	9.00	2,220				
1959	Sept. 28, 1959	8.50	1,890				
1960	Oct. 4, 1959	12.40	6,160				
	Oct. 13, 1959	11.60	4,930				
1961	May 5, 1961	10.85	3,890				
	May 8, 1961	15.30	16,300				
	May 23, 1961	10.20	3,330				
1962	June 10, 1962	10.25	3,430				
1963	June 17, 1963	9.97	3,130				
	July 1, 1963	9.90	3,030				
1964	Apr. 5, 1964	9.36	2,580				
1965	Apr. 5, 1965	13.09	7,420				

ARKANSAS RIVER BASIN

7-1859. O'Possum Creek at Jasper, Mo.

Location.--Lat 37°19'20", long 94°18'09", in NE¼NE¼ sec.26, T.30 N., R.31 W., on left downstream wingwall of bridge on U.S. Highway 71 just south of Jasper and 1.2 miles south of intersection of County Roads H and K with U.S. 71 in Jasper.

Drainage area.--9.67 sq mi. Slope.--16.0 ft per mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined at 63, 330, and 1,860 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 27, 1955	14.12	1,670				
1956	June 6, 1956	11.44	330				
1957	June 9, 1957	13.24	1,110				
1958	July 25, 1958	12.72	840				
1959	Mar. 4, 1959	13.19	1,080				
1960	Oct. 2, 1959	13.99	1,560				
1961	May 8, 1961	14.40	1,860				
1962	Sept. 22, 1962	12.01	540				
1963	June 4, 1963	13.46	1,240				
1964	June 14, 1964	13.20	1,100				
1965	Apr. 4, 1965	12.48	730				

ARKANSAS RIVER BASIN

7-1860. Spring River near Waco

Location.--Lat 37°14'45", long 94°33'55", on line between SE¼ sec.7 and NE¼ sec.18, T.29 N., R.33 W., at county highway bridge three-quarters of a mile downstream from Blackberry Creek, 1½ miles east of Waco, and 47.6 miles above mouth.

Drainage area.--1,164 sq mi. Slope.--6.08 ft per mi.

Gage.--Nonrecording prior to Feb. 23, 1935; recording thereafter. Datum of gage is 833.23 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 87,000 cfs.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 13,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	-	22	a21,000	1945	Mar. 20, 1945	16.18	13,600
					Apr. 14, 1945	23.61	33,400
1924	May 29, 1924	20.12	18,200		Apr. 16, 1945	24.65	38,300
	June 11, 1924	19.63	17,500		Apr. 22, 1945	17.38	15,600
					May 27, 1945	17.33	15,400
1925	Sept. 22, 1925	10.37	6,550		June 6, 1945	18.00	16,500
					June 17, 1945	16.36	13,900
1926	Sept. 5, 1926	16.40	13,400		Sept. 26, 1945	21.98	26,800
1927	Oct. 4, 1926	16.20	13,100	1946	June 1, 1946	19.1	18,400
	Apr. 1, 1927	23.58	28,100				
	Apr. 10, 1927	21.78	22,100	1947	Apr. 11, 1947	16.16	13,700
	Apr. 15, 1927	20.13	18,400		Apr. 25, 1947	24.6	38,300
	Apr. 19, 1927	20.05	18,200				
	July 23, 1927	18.10	15,500	1948	June 22, 1948	24.63	38,300
	Aug. 9, 1927	20.14	18,400		June 26, 1948	17.62	15,900
	Aug. 17, 1927	28.6	57,400		July 26, 1948	18.79	17,800
1928	Oct. 2, 1927	17.26	14,500	1949	Jan. 24, 1949	15.50	13,000
	June 10, 1928	20.80	19,800				
	June 18, 1928	16.30	13,300	1950	Aug. 28, 1950	24.50	37,800
	June 22, 1928	20.54	19,200				
1929	Apr. 9, 1929	20.57	19,400	1951	Feb. 21, 1951	19.52	19,200
	Apr. 20, 1929	21.15	20,600		July 1, 1951	15.95	13,700
	May 13, 1929	22.65	25,000		July 4, 1951	16.20	13,900
	May 19, 1929	19.78	17,900		Sept. 10, 1951	16.43	14,200
					Sept. 13, 1951	17.74	16,000
1930	June 16, 1930	12.96	9,350	1952	Nov. 12, 1951	16.28	14,000
					Feb. 2, 1952	20.08	20,700
1931	May 19, 1931	11.92	8,140	1953	Apr. 24, 1953	7.63	3,710
1932	June 28, 1932	20.88	19,800	1954	Sept. 30, 1954	8.14	4,160
1933	Dec. 25, 1932	17.84	15,100	1955	June 28, 1955	17.70	16,000
	May 14, 1933	16.64	13,600	1956	May 31, 1956	7.91	3,680
1934	Apr. 15, 1934	7.70	3,950	1957	May 23, 1957	19.12	16,400
1935	Mar. 12, 1935	20.23	18,700		May 25, 1957	20.34	19,100
	June 7, 1935	18.00	15,300		June 2, 1957	19.20	16,600
1936	Sept. 28, 1936	15.70	12,500		June 9, 1957	24.20	34,500
					June 14, 1957	18.52	15,400
1937	Nov. 3, 1936	17.57	14,800	1958	July 12, 1958	17.20	13,800
	Jan. 14, 1937	16.59	13,500				
	June 10, 1937	19.42	17,200	1959	Mar. 5, 1959	15.93	12,200
1938	May 31, 1938	18.50	16,000	1960	Oct. 3, 1959	21.35	22,400
	June 16, 1938	17.23	14,300		May 6, 1960	17.07	13,700
1939	May 22, 1939	15.34	11,900	1961	May 1, 1961	17.70	15,300
1940	July 23, 1940	11.46	7,700		May 9, 1961	25.90	47,900
					May 23, 1961	16.25	13,400
1941	Apr. 16, 1941	17.50	15,400	1962	Mar. 21, 1962	11.38	7,480
	Apr. 20, 1941	24.66	38,800	1963	June 15, 1963	9.73	5,530
1942	Oct. 5, 1941	24.4	37,300	1964	June 13, 1964	19.54	17,300
	Oct. 31, 1941	23.66	33,500	1965	Apr. 4, 1965	19.54	18,400
1943	Dec. 27, 1942	18.08	16,400				
	May 11, 1943	22.75	29,900				
	May 19, 1943	30.94	103,000				
	June 4, 1943	15.97	13,200				
1944	Apr. 11, 1944	16.30	13,700				
	June 20, 1944	16.60	14,200				

a Annual peak only.

ARKANSAS RIVER BASIN

7-1865. Turkey Creek at Joplin, Mo.

Location.--Lat 37°06'46", long 94°31'34", in NW¼NW¼ sec.24, T.28 N., R.33 W., 80 ft downstream from bridge on Lone Elm Road, a quarter of a mile downstream from Joplin Creek, and about 1 mile northwest of Joplin.

Drainage area.--33 sq mi, approximately. Slope.--17.3 ft per mi.

Gage.--Recording. Datum of gage is 903.98 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 700 cfs.

Bankfull stage.--6 ft.

Historical data.--Highest stage known in over 36 years (1932), 10.0 ft, date unknown, from information by road district employee.

Remarks.--Base for partial-duration series, 510 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Dec. 24, 1932	7.38	1,090				
	Apr. 20, 1933	7.57	1,150				
	May 13, 1933	6.58	876				
	May 15, 1933	5.70	658				
	May 24, 1933	5.51	610				
	Aug. 3, 1933	6.50	850				
1934	Sept. 29, 1934	5.01	500				
1935	Mar. 11, 1935	7.30	1,090				
1936	May 1, 1936	5.44	610				
	July 1, 1936	6.65	890				
	Sept. 27, 1936	7.15	890				
1937	Oct. 6, 1936	9.86	1,980				
	Oct. 8, 1936	6.43	838				
	Jan. 14, 1937	5.81	696				
	Jan. 30, 1937	5.53	630				
1938	Mar. 30, 1938	6.48	864				
1939	May 12, 1939	5.04	530				
	May 22, 1939	5.12	550				

ARKANSAS RIVER BASIN

7-1869.50. North Fork Carver Creek at Diamond, Mo.

Location.--Lat 36°59'45", long 94°19'50", in SW¼SW¼ sec.4, T.26 N., R.31 W., on right bank just upstream from culvert under County Road V, 0.8 mile west of Diamond and 9 miles northeast of Neosho.

Drainage area.--0.33 sq mi. Slope.--100 ft per mi.

Gage.--Crest-stage gage; supplemental recording gage installed Sept. 13, 1960, and removed June 6, 1966.

Stage-discharge relation.--Defined at 92, 110, and 191 cfs by indirect measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	June 27, 1955	8.36	110				
1956	May 30, 1956	7.83	92				
1957	May 21, 1957	8.36	110				
1958	July 25, 1958	8.10	100				
1959		(a)	(b)				
1960	Oct. 2, 1959	9.49	191				
1961	May 8, 1961	7.63	78				
1962	Sept. 22, 1962	10.09	250				
1963	Mar. 4, 1963	6.17	14				
1964	Apr. 5, 1964	6.58	28				
1965	Apr. 3, 1965	8.35	110				

a Stage below bottom of gage.

b Discharge less than 30 cfs.

ARKANSAS RIVER BASIN

7-1870. Shoal Creek above Joplin, Mo.
(Published as "near Joplin" prior to 1942)

Location.--Lat 37°00'45", long 94°28'45", in NE¼ sec.1, T.26 N., R.33 W., at bridge on U.S. Highway 71, 4 miles southeast of Joplin, 6 miles downstream from Baynham Branch, and 15.0 miles above mouth.

Drainage area.--410 sq mi; 439 sq mi prior to Oct. 1, 1941. Slope.--8.34 ft per mi.

Gage.--Nonrecording prior to Apr. 25, 1934; recording thereafter. At site 5.0 miles downstream prior to Oct. 1, 1941. At datum 44.21 ft lower prior to Apr. 25, 1934. At datum 45.21 ft lower Apr. 25, 1934, to Sept. 30, 1941. Datum of present gage is 902.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 41,000 cfs at former site. Defined by current-meter measurements at present site. Shifts in relation occur.

Bankfull stage.--10 ft.

Remarks.--Records for sites "near" and "above" Joplin considered equivalent for flood-frequency study. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	July 13, 1924	13.08	14,200	1945	Apr. 13, 1945	13.3	24,800
					Apr. 15, 1945	12.8	21,000
1925	Apr. 9, 1925	4.83	2,580		May 10, 1945	11.57	14,000
					May 17, 1945	10.35	8,650
1926	Sept. 6, 1926	8.33	6,230		Sept. 24, 1945	12.84	20,400
1927	Apr. 15, 1927	12.33	12,700	1946	May 31, 1946	10.56	9,840
	Apr. 19, 1927	12.42	12,900				
	Aug. 8, 1927	10.50	9,550	1947	Apr. 10, 1947	10.80	10,300
	Aug. 18, 1927	8.70	6,780		Apr. 25, 1947	12.73	20,400
1928	June 2, 1928	8.70	6,430	1948	June 23, 1948	9.36	6,070
	June 10, 1928	13.83	15,100		July 26, 1948	9.90	7,440
	June 19, 1928	13.83	15,100				
	June 21, 1928	12.75	13,200	1949	June 14, 15, 1949	8.07	3,620
	June 28, 1928	9.00	6,850				
	Aug. 5, 1928	11.50	11,000	1950	Jan. 14, 1950	9.57	6,570
1929	Apr. 9, 1929	9.42	7,450		Aug. 5, 1950	10.75	10,500
	Apr. 21, 1929	11.50	11,000		Aug. 27, 1950	13.6	27,300
	May 9, 1929	9.08	7,000	1951	June 30, 1951	10.87	10,900
	May 13, 1929	12.92	13,400				
	May 18, 1929	9.17	7,150	1952	Aug. 22, 1952	7.68	3,110
	June 3, 1929	8.42	6,020				
1930	Sept. 10, 1930	13.92	15,200	1953	Mar. 15, 1953	6.10	1,300
	Sept. 16, 1930	10.92	9,930	1954	Sept. 30, 1954	8.36	4,150
1931	July 26, 1931	6.33	3,760	1955	Mar. 21, 1955	9.96	7,740
1932	June 2, 1932	9.00	6,850	1956	May 16, 1956	10.00	7,740
	June 27, 1932	15.00	17,200				
1933	Dec. 25, 1932	12.33	9,930	1957	May 22, 1957	11.85	15,000
	May 14, 1933	13.0	11,900		May 25, 1957	12.03	16,100
					June 10, 1957	12.04	16,100
1934	Oct. 23, 1933	3.16	1,260	1958	July 26, 1958	10.34	8,100
1935	Mar. 12, 1935	18.25	20,100	1959	Sept. 29, 1959	9.10	4,710
	June 8, 1935	16.24	15,100				
1936	Sept. 27, 1936	8.88	5,220	1960	Oct. 2, 1959	13.5	26,500
1937	June 10, 1937	8.92	5,330	1961	May 8, 1961	13.23	20,500
1938	June 8, 1938	10.10	6,610	1962	Sept. 22, 1962	9.93	6,030
1939	May 13, 1939	8.35	4,420	1963	June 17, 1963	5.95	1,230
1940	Aug. 18, 1940	4.78	1,630	1964	June 14, 1964	11.88	10,800
1941	Apr. 19, 1941	28.0	54,000	1965	Apr. 4, 1965	10.20	5,860
1942	Oct. 5, 1941	11.86	11,500				
1943	May 10, 1943	12.16	16,600				
	May 18, 1943	16.8	62,100				
1944	June 20, 1944	10.0	7,260				

a Annual peak only.

ARKANSAS RIVER BASIN

7-1885. Lost Creek at Seneca, Mo.

Location.--Lat 36°50', long 94°36', in SW¼SW¼ sec.36, T.25 N., R.34 W., on left bank on downstream side of Seneca Street Bridge in Seneca, half a mile upstream from Little Lost Creek and 9½ miles upstream from mouth.

Drainage area.--42 sq mi. Slope.--23.6 ft per mi.

Gage.--Recording to Sept. 30, 1959; crest-stage gage since Oct. 1, 1960. Datum of gage is 839.96 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs and extended above by logarithmic plotting.

Remarks.--Base for partial-duration series, 175 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 16, 1943	11.7	-	1964	June 12, 1964	9.69	8,690
1945	September 1945	11.7	-	1965	Apr. 2, 1965	5.61	2,000
1949	Feb. 15, 1949	2.79	361				
	Apr. 27, 1949	2.39	252				
	Sept. 13, 1949	2.08	178				
	Sept. 18, 1949	2.38	252				
1950	Jan. 13, 1950	2.37	249				
	May 11, 1950	2.15	207				
	July 10, 1950	2.33	241				
	Aug. 27, 1950	6.78	3,280				
	Sept. 15, 1950	2.89	377				
1951	Oct. 3, 1950	2.67	301				
	Feb. 20, 1951	3.22	488				
	June 30, 1951	8.05	4,600				
	July 10, 1951	2.48	267				
1952	May 23, 1952	3.18	472				
1953	Apr. 24, 1953	1.77	107				
1954	Sept. 30, 1954	2.04	274				
1955	Oct. 26, 1954	2.33	296				
	Mar. 20, 1955	1.80	187				
	June 27, 1955	1.96	218				
	July 6, 1955	2.29	287				
	July 17, 1955	1.90	206				
1956	May 31, 1956	1.49	132				
1957	Mar. 31, 1957	2.95	596				
	Apr. 3, 1957	1.98	281				
	Apr. 16, 1957	2.79	539				
	Apr. 20, 1957	3.59	890				
	May 16, 1957	1.72	213				
	May 21, 1957	7.54	4,690				
	May 25, 1957	8.21	5,760				
	May 29, 1957	2.82	539				
	June 2, 1957	2.65	486				
	June 9, 1957	7.20	4,270				
	July 1, 1957	1.72	208				
1958	Mar. 23, 1958	2.25	361				
	Mar. 30, 1958	1.70	210				
	June 21, 1958	1.77	230				
	July 7, 1958	2.48	337				
	July 25, 1958	4.46	1,420				
	July 28, 1958	1.71	231				
1959	Mar. 5, 1959	2.36	372				
	Apr. 18, 1959	1.50	186				
	May 17, 1959	1.56	197				
	Sept. 30, 1959	3.01	555				
1960	Oct. 2, 1959	12.98	20,000				
1961	May 7, 1961	4.67	1,370				
1962	Nov. 5, 1961	2.24	348				
1963	Mar. 8, 1963	1.17	128				

ARKANSAS RIVER BASIN

7-1890. Elk River near Tiff City, Mo.

Location.--Lat 36°38', long 94°35', in NE¼ sec.22, T.22 N., R.34 W., on downstream side of right pier of bridge on State Highway 43, three-quarters of a mile downstream from Blackfoot Branch, 2 3/4 miles upstream from Buffalo Creek, 3 miles southeast of Tiff City, and at mile 15.8.

Drainage area.--872 sq mi. Slope.--7.09 ft per mi.

Gage.--Recording. Datum of gage is 750.61 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs and extended on basis of slope-area measurement at 137,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 12, 1940	11.62	9,480	1957	Apr. 4, 1957	18.37	23,900
1941	Apr. 16, 1941	21.46	48,000		May 19, 1957	12.13	10,900
	Apr. 19, 1941	28.4	137,000		May 21, 1957	24.72	70,800
1942	Oct. 5, 1941	11.60	9,480		May 25, 1957	21.12	38,000
	Oct. 31, 1941	19.69	36,400		June 3, 1957	12.85	12,200
	Apr. 9, 1942	12.66	11,700		June 10, 1957	12.51	11,600
					June 13, 1957	11.66	10,200
1943	Oct. 31, 1942	16.70	23,000	1958	Mar. 24, 1958	12.75	12,200
	Nov. 6, 1942	12.99	12,400		May 3, 1958	13.53	13,500
	Dec. 28, 1942	14.35	15,600		May 9, 1958	11.20	9,340
	Apr. 12, 1943	12.26	11,000		July 12, 1958	11.40	9,680
	May 10, 1943	23.55	62,400		July 26, 1958	18.53	26,000
	May 18, 1943	23.60	62,900	1959	May 18, 1959	10.60	8,320
1944	Apr. 11, 1944	15.36	18,500	1960	May 21, 1960	12.07	10,900
	June 21, 1944	14.46	16,600	1961	May 5, 1961	17.57	23,200
1945	Feb. 22, 1945	14.90	18,000		May 7, 1961	21.48	40,500
	Mar. 3, 1945	17.54	26,200		May 20, 1961	12.02	10,800
	Mar. 7, 1945	13.57	14,900	1962	June 3, 1962	7.27	3,480
	Mar. 19, 1945	16.16	21,700	1963	Oct. 8, 1962	11.07	9,170
	Mar. 25, 1945	13.46	14,700		Oct. 13, 1962	10.97	9,000
	Apr. 15, 1945	23.5	63,200	1964	June 14, 1964	22.58	48,600
	May 10, 1945	12.46	12,200	1965	Apr. 3, 1965	18.63	29,000
	May 17, 1945	15.83	20,500		Apr. 6, 1965	14.89	17,000
	May 27, 1945	11.20	10,400		Apr. 15, 1965	12.89	12,900
	June 18, 1945	10.61	9,320				
	Sept. 25, 1945	12.84	13,300				
1946	Feb. 14, 1946	13.79	15,200				
	May 25, 1946	11.22	10,400				
1947	Dec. 10, 1946	15.94	20,800				
	Apr. 11, 1947	14.29	16,500				
	Apr. 25, 1947	16.10	21,400				
1948	Aug. 15, 1948	10.50	8,410				
1949	May 20, 1949	11.29	9,860				
1950	Jan. 14, 1950	15.13	18,500				
	May 11, 1950	21.72	45,900				
	July 20, 1950	17.52	24,000				
	Aug. 6, 1950	19.60	33,000				
	Aug. 27, 1950	11.83	10,500				
1951	Feb. 19, 1951	17.00	22,000				
1952	Aug. 22, 1952	11.85	10,300				
1953	Mar. 15, 1953	10.06	7,270				
1954	May 3, 1954	11.06	9,030				
1955	Feb. 20, 1955	14.69	16,100				
	Mar. 21, 1955	11.47	9,750				
1956	May 15, 1956	23.14	49,900				

PART II

Peak Discharges at Miscellaneous Sites

Site Location (in downstream order)	Drainage area (sq. mi.)	Peak Discharge	
		Date	Cfs
<u>Rock Creek basin</u> Rock Creek at Rockport, Atchison County	40.1	July 18, 1965	8,260
Boney Branch at Rockport, Atchison County	0.76	July 18, 1965	5,080
<u>Nodaway River basin</u> Lincoln Creek 2 miles south of Fillmore, Andrew County	20.7	July 19, 1965	6,170
<u>Platte River basin</u> Malden Creek 3 miles northwest of Gower, Buchanan County	9.24	July 20, 1965	12,100
Mitchell Branch 1.5 miles north of Edgerton, Platte County	1.56	July 19, 1965	3,490
Grove Creek Tributary 1.5 miles southeast of Edgerton, Platte County	1.03	July 19, 1965	2,770
Alger Creek 0.5 miles southeast of Camden Point, Platte County	2.36	July 19, 1965	3,000
Linn Branch Tributary at Grayson, Clinton County	0.79	July 19, 1965	2,410
Camp Branch at Arley, Clay County	9.78	July 19, 1965	5,430
Second Creek at Linkville, Platte County	9.99	July 19, 1965	10,000
First Creek 2 miles east of Linkville, Platte County	5.23	July 19, 1965	4,430
Little Platte River tributary 2 miles northwest of Smithville, Platte County	0.44	July 19, 1965	1,270
Platte River at Inter- state Highway 29 at Platte City, Platte County	2,400	July 20, 1965	114,000
<u>Fishing River basin</u> Fishing River 2.2 miles northeast of Roosterville, Clay County	24.7	July 19, 1965	13,500

Fishing River 1.5 miles south of Kearney, Clay County	39.4	June 22, 1947	30,000
Clear Creek 2.9 miles northwest of Holt, Clinton County	7.37	June 22, 1947	15,000
Clear Creek 3 miles west of Holt, Clay County	19.4	June 22, 1947	22,000
Clear Creek 2 miles north of Kearney, Clay County	29.4	July 19, 1965	17,900
Fishing River 0.5 mile north of Milfordale, Clay County	238	July 20, 1965	80,200
<u>Grand River basin</u> Shoal Creek 2 miles east of Turney, Clinton County	23.3	July 19, 1965	9,640
<u>Osage River basin</u> Crane Creek 3 miles southeast of Hermitage, Hickory County	16.4	May 30, 1956	16,800
Jordan Branch 2 miles east of Wheatland, Hickory County	2.46	May 30, 1956	4,990
<u>Gasconade River basin</u> Bow Creek 1.5 miles northwest of Odin, Wright County	4.94	Oct. 21, 1949	5,400
<u>White River basin</u> Dry Fork Tributary 1 mile west of Fordland, Webster County	0.41	June 13, 1963	475
Railey Creek Tributary at Reeds Spring, Stone County	0.64	June 12, 1965	873
<u>Plattin Creek basin</u> Plattin Creek 3 miles south of Crystal City, Jefferson County	83.4	June 17, 1964	30,100
<u>Isle du Bois Creek basin</u> Isle du Bois Creek 8 miles southeast of Crystal City, Jefferson-Ste. Genevieve County line	16.4	June 17, 1964	28,400
<u>Establishment Creek basin</u> Kinsey Creek at Kinsey, Ste. Genevieve County	3.18	June 17, 1964	11,600

APPENDIX II
Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
5-4950.00	Fox River at Wayland, Mo.	400	4.5	1923-65	3,200	6,600	9,800	12,300	18,800	23,500
5-4951.00	Big Branch tributary near Wayland, Mo.	0.70	80.8	1955-65	50	115	215	305	----	----
5-4960.00	Wyaconda River above Canton, Mo.	393	4.5	1922-65	2,800	5,700	8,900	11,700	15,900	18,300
5-4970.00	North Fabius River at Monticello, Mo.	452	4.8	1923-65	4,400	8,200	11,300	13,800	17,000	19,200
5-4975.00	Middle Fabius River near Baring, Mo.	185	6.8	1931-61, 1963-65	2,400	4,900	6,900	8,400	9,800	10,900
5-4977.00	Bridge Creek Branch near Baring, Mo.	2.54	43.2	1955-65	185	425	615	770	----	----
5-4980.00	Middle Fabius River near Monticello, Mo.	393	4.1	1946-65	3,500	6,100	8,200	10,300	13,000	15,700
5-4985.00	North Fabius River at Taylor, Mo.	930	4.0	1929, 1931-42	5,100	10,700	15,000	18,700	23,300	27,000
5-5000.00	South Fabius River near Taylor, Mo.	620	3.4	1935-65	3,400	7,400	10,800	13,400	17,000	19,400
5-5005.00	North River at Bethel, Mo.	58	5.0	1937-65	900	2,300	3,800	5,200	7,000	8,400
5-5010.00	North River at Palmyra, Mo.	373	5.0	1935-65	5,200	10,300	15,200	19,400	25,000	29,000
5-5012.00	Nichols Branch near Palmyra, Mo.	2.58	52.5	1949, 1955-65	160	500	860	1,220	----	----
5-5020.00	Bear Creek at Hannibal, Mo.	31.0	15.4	1939-42, 1948-65	1,200	2,900	4,300	5,400	6,900	----
5-5025.00	Salt River near Shelbina, Mo.	481	3.9	1931-65	3,000	6,800	10,200	12,800	17,000	20,600
5-5027.00	Easdale Branch near Shelbyville, Mo.	0.71	76.1	1958-65	180	390	610	800	----	----
5-5030.00	Douglas Creek near Emden, Mo.	2.64	32.3	1956-65	400	620	830	1,000	----	----
5-5035.00	Salt River near Hunnewell, Mo.	626	3.0	1931-40	4,200	7,400	10,200	12,600	15,800	18,200
5-5050.00	South Fork Salt River at Sante Fe, Mo.	298	3.6	1940-65	4,200	8,100	10,200	12,000	14,200	15,800
5-5060.00	Youngs Creek near Mexico, Mo.	67.4	7.5	1937-65	1,350	2,700	3,800	4,650	5,800	6,650
5-5065.00	Middle Fork Salt River at Paris, Mo.	356	2.9	1940-65	3,000	5,100	7,000	8,900	12,800	17,000
5-5070.00	Elk Fork Salt River near Paris, Mo.	262	3.5	1928, 1931-54, 1958	4,000	8,100	11,500	14,300	17,900	20,700
5-5080.00	Salt River near New London, Mo.	2,480	2.5	1923-65	16,000	28,000	39,000	48,000	60,000	69,000
5-5134.00	Knox Branch near Elsberry, Mo.	1.17	91.5	1955-61	310	430	530	615	----	----
5-5134.50	Lost Creek tributary near Elsberry, Mo.	0.33	253	1955-61	110	225	335	425	----	----
5-5134.70	North Fork Lost Creek near Elsberry, Mo.	2.23	70.5	1955-61	240	640	1,020	1,360	----	----
5-5135.00	Lost Creek at Elsberry, Mo.	12.2	64.6	1954-61	1,500	2,400	3,700	4,900	----	----
5-5136.00	Camp Creek near Elsberry, Mo.	1.50	126	1955-65	150	430	660	860	----	----
5-5136.50	Hurricane Creek near Elsberry, Mo.	3.06	86.3	1955-65	350	860	1,280	1,600	----	----
5-5137.00	Mams Slough Creek near Wellsville, Mo.	5.08	14.3	1955-57, 1961-65	200	500	770	990	----	----

APPENDIX II--continued
Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2 70	2.33 215	5 350	10 465	15 ----	50 ----
5-5142.00	Reid Branch near Bowling Green, Mo.	0.54	93.3	1955-65						
5-5145.00	Cuivre River near Troy, Mo.	903	4.6	1923-65	12,500	25,000	35,000	43,400	53,500	61,500
6-8130.00	Tarkio River at Fairfax, Mo.	508	4.93	1923-65	3,700	8,400	11,800	14,000	16,700	18,500
6-8155.50	Staples Branch near Burlington Junction, Mo.	0.49	61.1	1959-65	130	258	375	473	----	----
6-8160.00	Mill Creek at Oregon, Mo.	4.90	42.3	1950-65	320	740	1,090	1,360	----	----
6-8175.00	Nodaway River near Burlington Junction, Mo.	1,240	4.21	1923-65	6,700	17,500	21,800	25,000	29,300	32,700
6-8189.00	Platte River at Ravenwood, Mo.	486	4.45	1922-23, 1929-32 1959-65	4,700	7,900	9,800	11,300	13,300	-----
6-8195.00	One Hundred and Two River near Maryville, Mo.	500	5.72	1926, 1933-65	3,800	7,600	10,500	12,900	15,800	17,700
6-8200.00	White Cloud Creek near Maryville, Mo.	6.06	19.5	1949-65	350	1,050	1,970	2,850	4,100	----
6-8203.00	Big Slough near Wilcox, Mo.	1.30	35.5	1950-65	250	440	610	760	950	----
6-8205.00	Platte River near Agency, Mo.	1,760	3.76	1925-30, 1933-65	6,900	15,200	23,000	30,500	40,000	47,000
6-8210.00	Jenkins Branch at Gower, Mo.	2.72	34.0	1950-65	300	820	1,530	2,240	3,250	----
6-8211.3	First Creek near Nashua, Mo.	0.55	59.5	1959-65	65	140	255	375	----	----
6-8935.00	Blue River near Kansas City, Mo.	188	12.4	1940-65	5,200	9,500	15,600	23,600	36,300	47,000
6-8940.00	Little Blue River near Lake City, Mo.	184	6.26	1949-65	1,900	3,900	5,500	6,900	9,900	
6-8945.00	East Fork Fishing River at Excelsior Springs, Mo.	20.0	21.9	1951-65	700	2,700	5,100	7,300	10,400	----
6-8950.00	Crooked River near Richmond, Mo.	159	5.17	1949-65	1,700	4,000	7,200	11,500	----	----
6-8960.00	Wakenda Creek at Carrollton, Mo.	248	5.27	1949-65	2,850	5,150	6,600	7,300	8,000	----
6-8961.80	Demoss Branch near Stanberry, Mo.	0.38	106	1955-65	105	200	295	380	----	----
6-8965.00	Thompson Branch near Albany, Mo.	5.58	30.9	1956-65	500	1,020	1,540	2,020	----	----
6-8967.00	O'Neill Branch at Osborn, Mo.	0.80	50.9	1955-65	130	350	620	880	----	----
6-8970.00	East Fork Big Creek near Bethany, Mo.	95	7.24	1909, 1935-65 1959-65	1,300	2,950	4,450	5,650	7,250	8,450
6-8972.00	Simpson Branch near Bethany, Mo.	4.72	27.6	1955-65	875	2,000	3,300	4,560	----	----
6-8975.00	Grand River near Gallatin, Mo.	2,250	4.11	1909, 1922-65	12,500	27,500	39,300	49,000	61,500	70,000
6-8985.00	Weldon River near Mercer, Mo.	246	7.54	1939-65	4,200	10,300	16,200	21,400	28,000	33,300
6-8990.00	Weldon River at Mill Grove, Mo.	494	5.05	1909, 1930-65	4,400	10,400	16,200	21,400	28,200	33,400
6-8995.00	Thompson River at Trenton, Mo.	1,670	3.67	1909, 1922-23, 1929-65	10,500	24,000	34,800	43,500	54,700	64,000
6-8996.00	West Fork Leaky Branch near Chillicothe, Mo.	0.21	63.8	1955-65	50	133	225	308	----	----
6-9000.00	Medicine Creek near Galt, Mo.	225	5.00	1909, 1922-28, 1930-65	2,400	6,500	10,400	13,800	18,200	21,600
6-9013.00	Moffet Branch near Reger, Mo.	0.13	150	1955-65	132	217	293	358	----	----

APPENDIX II--continued
Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
6-9015.00	Locust Creek near Linneus, Mo.	550	4.22	1909, 1929-65	4,700	9,500	13,500	17,000	22,000	26,500
6-9020.00	Grand River near Sumner, Mo.	6,880	3.15	1909, 1924-65	28,000	57,000	80,000	99,000	123,000	140,000
6-9025.00	Hamilton Branch near New Boston, Mo.	2.51	27.0	1956-65	300	590	770	890	----	----
6-9028.00	Onion Branch at St. Catherine, Mo.	1.04	49.3	1955-65	80	290	580	865	----	----
6-9030.00	Yellow Creek near Rothville, Mo.	405	4.27	1909, 1929-32, 1947, 1949-51, 1961-65	2,800	5,700	8,100	10,100	12,500	
6-9045.00	Chariton River at Novinger, Mo.	1,370	2.63	1917, 1922-52, 1955-65	5,000	10,200	15,600	19,400	24,800	28,800
6-9047.00	Strop Branch near Novinger, Mo.	0.96	94.7	1955-65	140	400	750	1,100	----	----
6-9055.00	Chariton River near Prairie Hill, Mo.	1,870	2.25	1929-65	8,000	13,600	18,000	21,500	26,000	31,400
6-9057.00	Puzzle Creek near Salisbury, Mo.	0.80	55.6	1955-65	90	165	280	410	----	----
6-9066.00	Burge Branch near Arrow Rock, Mo.	0.33	76.0	1960-65	25	52	87	120	----	----
6-9067.00	Flat Creek near Sedalia, Mo.	148	8.1	1959-65	3,500	8,300	13,500	18,300	----	----
6-9070.00	Lamine River at Clifton City, Mo.	598	3.6	1905, 1907, 1923-65	7,000	16,400	27,400	37,400	51,200	62,000
6-9072.00	Shaver Creek tributary near Clifton City, Mo.	1.65	46.4	1955-65	330	720	1,110	1,450	----	----
6-9075.00	South Fork Blackwater River near Elm, Mo.	16.4	22.2	1955-65	1,000	2,150	3,700	5,200	----	----
6-9077.00	Blackwater River at Valley City, Mo.	547	5.05	1959-65	7,500	21,500	37,000	51,500	----	----
6-9080.00	Blackwater River at Blue Lick, Mo.	1,120	2.50	1905, 1923-33, 1939-65	4,400	11,000	18,500	25,600	35,000	42,000
6-9083.00	Trent Branch near Waverly, Mo.	0.97	69.2	1955-65	260	440	720	1,030		
6-9085.00	Shiloh Branch near Marshall, Mo.	2.87	40.1	1952-65	285	610	880	1,100	----	----
6-9094.00	Cottonwood Creek tributary at Estill, Mo.	0.30	87.0	1958-65	44	74	120	174	----	----
6-9095.00	Moniteau Creek near Fayette, Mo.	81	8.47	1944, 1949-65	2,000	3,150	4,100	4,900	5,900	----
6-9097.00	Petite Saline Creek tributary near Bellair, Mo.	0.49	78.4	1955-65	85	170	360	610	----	----
6-9100.00	Petite Saline Creek near Boonville, Mo.	182	6.35	1921, 1949-65	2,400	4,300	5,900	7,200	8,800	----
6-9102.00	Cow Branch near Columbia, Mo.	1.01	57.3	1955-65	220	365	520	670	----	----
6-9102.50	Traxler Branch near Columbia, Mo.	0.55	119	1958-65	150	290	450	600	----	----
6-9103.00	Peden Branch near Jefferson City, Mo.	0.18	220	1957-65	50	98	152	200	----	----
6-9104.00	Baldwin Branch near Jefferson City, Mo.	0.60	144	1957-65	230	540	850	1,140	----	----
6-9105.00	Moreau River near Jefferson City, Mo.	531	4.64	1948-65	9,500	16,200	22,500	28,000	37,300	----
6-9107.00	Hazel Branch tributary near Wardsville, Mo.	0.13	141	1957-65	52	102	164	222	----	----
6-9182.00	North Fork Panther Creek tributary near Appleton City, Mo.	0.08	222	1955-65	33	49	76	105	----	----

APPENDIX II--continued
Flood Frequency Data for Streamgaging Stations in Missouri

Station name	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
6-9183.00	West Fork Clear Creek tributary near Nevada, Mo.	0.51	36.2	1955-65	155	290	460	620	----	----
6-9184.00	Pickrel Creek tributary near Republic, Mo.	0.57	68.8	1957-65	76	142	208	266	----	----
6-9187.00	Oak Grove Branch near Brighton, Mo.	1.30	94.2	1957-65	90	280	490	690	----	----
6-9187.50	Franca Branch near Brighton, Mo.	0.59	109	1955-65	90	190	350	490	----	----
6-9190.00	Sac River near Stockton, Mo.	1,160	4.23	1896, 1909, 1922-65	8,000	22,000	39,000	55,500	78,000	95,000
6-9192.00	Sac River tributary near Caplinger Mills, Mo.	0.14	149	1955-65	28	102	196	284	----	----
6-9195.00	Cedar Creek near Pleasant View, Mo.	420	4.78	1909, 1924-26, 1943, 1949-65	5,200	11,200	17,800	23,800	31,700	37,700
6-9205.00	Osage River at Osceola, Mo.	8,220	1.66	1844, 1896, 1918-29, 1931-65	24,000	45,000	63,000	78,000	101,000	123,000
6-9208.00	Big Muddy Creek at Lowry City, Mo.	0.31	48.7	1955-65	68	136	202	260	----	----
6-9210.00	Pomme de Terre River near Bolivar, Mo.	225	9.0	1951-65	3,900	9,500	15,500	21,000	28,500	----
6-9211.00	Olinger Creek near Buffalo, Mo.	1.96	47.8	1957-65	430	580	900	1,300	----	----
6-9212.00	Lindley Creek near Polk, Mo.	112	11.6	1914, 1958-65	4,900	11,200	18,000	24,500	----	----
6-9213.00	North Fork Ingalls Creek near Louisburg, Mo.	0.32	87.3	1958-65	43	85	127	163	----	----
6-9214.00	Ferguson Branch at Nemo, Mo.	0.18	154	1957-65	33	40	56	100	----	----
6-9215.00	Pomme de Terre River at Hermitage, Mo.	655	4.8	1922-65	8,500	19,000	30,500	41,200	55,500	66,500
6-9217.00	West Branch Crawford Creek near Lees Summit, Mo.	0.80	59.6	1955-65	190	370	600	850	----	----
6-9218.00	Granddaddy Creek near Ulrich, Mo.	0.92	36.2	1958-65	240	500	850	1,150	----	----
6-9220.00	South Grand River near Brownington, Mo.	1,660	2.1	1915, 1922-65	7,000	14,500	24,500	36,000	52,500	66,500
6-9226.00	Little Turkey Creek tributary near Warsaw, Mo.	0.18	178	1959-65	80	115	170	227	----	----
6-9227.00	Chub Creek near Lincoln, Mo.	2.86	40.3	1958-65	610	720	860	990	----	----
6-9230.00	Niangua Branch at Marshfield, Mo.	0.82	116	1951-65	130	230	375	520	720	----
6-9240.00	Niangua River near Decaturville, Mo.	627	4.7	1923-65	6,200	12,800	19,500	25,500	33,400	39,400
6-9252.00	Starks Creek at Preston, Mo.	4.18	31.0	1957-65	480	850	1,400	2,020	----	----
6-9252.70	Dry Auglaize Creek tributary near Lebanon, Mo.	0.21	115	1955-65	30	55	99	148	----	----
6-9253.00	Prairie Branch near Decaturville, Mo.	1.48	84.1	1955-65	360	940	1,740	2,540	----	----
6-9254.50	Little Gravois Creek near Versailles, Mo.	4.74	64.0	1955-65	750	1,750	3,250	4,900	----	----
6-9262.00	Van Cleve Branch near Meta, Mo.	0.75	95.4	1957-65	60	380	800	1,200	----	----
6-9268.00	Long Branch near Vienna, Mo.	0.32	112	1957-65	70	150	260	370	----	----
6-9270.00	Maries River at Westphalia, Mo.	257	8.91	1937, 1948-65	6,600	10,200	14,000	17,500	22,000	----

APPENDIX II--continued
Flood Frequency Data for Streamgaging Stations in Missouri

Station Name	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
6-9271.00	Doane Branch near Kingdom City, Mo.	0.54	70.2	1955-63, 1965	50	100	150	250	----	----
6-9272.00	Big Hollow near Fulton, Mo.	4.05	34.0	1957-65	340	650	960	1,230	----	----
6-9276.00	Wheeler Branch near Mountain Grove, Mo.	1.34	48.8	1955-65	185	330	560	820	----	----
6-9280.00	Gasconade River near Hazelgreen, Mo.	1,250	3.97	1916, 1929-65	8,800	23,500	39,000	53,000	71,500	85,500
6-9282.00	Laquey Branch near Hazlegreen, Mo.	1.58	87.4	1958-65	300	480	870	1,330	----	----
6-9285.00	Gasconade River near Waynesville, Mo.	1,680	3.18	1915-65	9,800	25,500	40,500	54,000	71,500	85,000
6-9290.00	Coyle Branch at Houston, Mo.	1.10	95.9	1950-55, 1959-65	70	210	420	640	----	----
6-9300.00	Big Piney River near Big Piney, Mo.	560	5.65	1922-65	6,300	13,000	19,800	25,800	33,700	39,700
6-9310.00	Beaver Creek near Rolla, Mo.	14.0	39.5	1949-58, 1960-65	1,250	2,100	3,000	3,800	4,900	----
6-9315.00	Little Beaver Creek near Rolla, Mo.	6.41	65.6	1948-65	700	1,500	2,600	4,300	6,900	----
6-9320.00	Little Piney Creek at Newburg, Mo.	200	14.0	1915, 1929-65	2,200	7,000	13,600	20,000	29,000	36,000
6-9335.00	Gasconade River at Jerome, Mo.	2,840	3.01	1897, 1904-05 1924-65	14,500	32,000	52,000	72,000	98,000	118,000
6-9337.00	Penzer Hollow near Rolla, Mo.	0.27	190	1956-65	40	110	175	230	----	----
6-9350.00	Rumbo Branch near Danville, Mo.	1.40	44.9	1953-65	120	225	255	480	655	----
6-9355.00	Loutre River at Mineola, Mo.	202	10.4	1928, 1948-65	5,800	10,500	14,400	18,000	23,000	28,000
6-9357.00	Little Berger Creek tributary near Hermann, Mo.	0.25	178	1955-65	45	135	270	400	----	----
7-0112.00	Love Creek near Salem, Mo.	0.89	106	1955-65	60	107	165	222	-----	-----
7-0115.00	Green Acre Branch near Rolla, Mo.	0.62	82	1948-65	150	425	650	830	1,060	-----
7-0120.00	Behmke Branch near Rolla, Mo.	1.05	77	1949-65	195	420	635	860	1,180	-----
7-0120.50	Dry Fork near St. James, Mo.	370	5.60	1944-50	3,400	8,400	12,600	16,300	-----	-----
7-0130.00	Meramec River near Steelville, Mo.	781	6.29	1915, 1917-65	7,200	16,600	25,300	32,600	44,000	52,300
7-0145.00	Meramec River near Sullivan, Mo.	1,475	4.98	1915, 1922-33, 1944-65	11,000	22,500	33,000	42,500	57,000	73,000
7-0150.00	Bourbeuse River near St. James, Mo.	21.3	34	1948-65	2,400	4,350	5,900	7,200	-----	-----
7-0155.00	Lanes Fork near Rolla, Mo.	0.22	41.1	1952-65	46	93	127	147	-----	-----
7-0157.00	Lanes Fork near Vichy, Mo.	24.1	27	1944-45, 1948-65	2,100	3,800	5,300	6,700	8,800	-----
7-0158.00	Langenberg Branch near Rosebud, Mo.	0.64	100	1960-65	48	98	160	220	-----	-----
7-0160.00	Bourbeuse River near Spring Bluff, Mo.	608	3.92	1915, 1944-65	8,500	15,700	23,500	30,600	40,500	47,500
7-0165	Bourbeuse River at Union, Mo.	808	2.76	1897, 1915-65	8,000	13,400	20,000	26,000	34,500	41,000
7-0170.00	Meramec River at Robertsville, Mo.	2,673	3.83	1915, 1940-51	13,500	34,000	54,000	70,000	90,000	-----
7-0175.00	Dry Branch near Bonne Terre, Mo.	3.35	48.5	1956-65	360	670	980	1,260	-----	-----
7-0177.00	Fountain Farm Branch near Potosi, Mo.	2.16	71.8	1957-65	200	280	460	740	-----	-----
7-0180.00	Big River near DeSoto, Mo.	718	4.63	1915, 1949-65	8,500	16,500	24,000	31,000	40,000	49,000

APPENDIX II--continued
Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second, for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
7-0185.00	Big River at Byrnesville, Mo.	917	3.36	1915, 1923-65	7,800	15,500	23,000	29,000	37,500	44,000
7-0190.00	Meramec River near Eureka, Mo.	3,788	3.44	1904-05, 1915-16, 1922-65	18,000	35,000	55,000	73,000	98,000	116,000
7-0191.00	Murphy Branch near Crystal City, Mo.	0.44	108	1955-65	80	160	310	460	-----	-----
7-0207.00	Hoehs Branch near Uniontown, Mo.	1.66	59.4	1955-65	580	940	1,270	1,540	-----	-----
7-0210.00	Castor River at Zalma, Mo.	423	8.92	1920-65	4,000	12,500	21,500	30,000	41,500	50,000
7-0212.00	Sunnybrook Creek at Lutesville, Mo.	0.52	196	1955-65	150	260	385	495	-----	-----
7-0330.00	Wolf Creek near Farmington, Mo.	40.3	19.9	1955-65	1,400	3,500	5,600	7,600	10,100	-----
7-0355.00	Barnes Creek near Fredericktown, Mo.	4.03	114	1956-65	600	1,550	2,900	4,250	-----	-----
7-0375.00	St. Francis River near Patterson, Mo.	956	7.24	1915, 1921-65	17,000	36,000	51,000	63,000	79,000	91,000
7-0377.00	Clark Creek near Piedmont, Mo.	4.39	63.9	1957-65	520	920	1,360	1,760	-----	-----
7-0380.00	Clark Creek at Patterson, Mo.	37.5	29.4	1955-65	3,100	5,600	7,700	9,500	-----	-----
7-0401.10	Delaware Creek tributary near Bloomfield, Mo.	0.38	85.5	1955-65	375	510	630	730	-----	-----
7-0410.00	Little River ditch 81 near Kennett, Mo.	111	1.0	1927-65	980	2,020	2,450	2,620	2,750	2,820
7-0420.00	Little River ditch 1 near Kennett, Mo.	235	1.0	1927-65	2,500	4,550	5,700	6,550	7,500	8,200
7-0425.00	Little River ditch 251 near Lilbourn, Mo.	235	2.0	1945-65	1,450	2,370	2,820	3,130	3,440	3,660
7-0430.00	Castor River at Aquilla, Mo.	175	0.80	1945-65	1,450	2,300	3,050	3,750	4,850	6,000
7-0435.00	Little River ditch 1 near Morehouse, Mo.	450	2.0	1946-65	3,500	5,600	6,700	7,400	8,100	8,700
7-0440.00	Little River ditch 251 near Kennett, Mo.	883	1.0	1927-65	5,500	9,800	11,800	12,700	13,400	13,800
7-0460.00	Little River ditch 259 near Kennett, Mo.	89.0	1.0	1927-65	950	1,930	2,600	3,130	3,780	4,260
7-0507.00	James River near Springfield, Mo.	246	6.50	1956-65	4,200	11,000	17,000	22,200	28,800	-----
7-0508.00	Maple Grove Branch near Ozark, Mo.	0.64	59.5	1957-65	90	230	410	580	-----	-----
7-0515.00	James River below Battlefield, Mo.	328	6.33	1926-31	4,000	10,000	14,800	18,800	-----	-----
7-0525.00	James River at Galena, Mo.	987	4.75	1922-65	8,800	21,300	32,000	41,000	52,500	61,500
7-0527.00	Brawley Hollow near Cassville, Mo.	2.61	57.6	1960-65	190	328	475	610	-----	-----
7-0539.50	Ingenthron Hollow near Forsyth, Mo.	0.65	186	1957-65	110	210	380	560	-----	-----
7-0541.00	Cedar Hollow at Bradleyville, Mo.	0.83	204	1956-65	190	430	680	900	-----	-----
7-0542.00	Yandell Branch near Kirbyville, Mo.	0.33	116	1955-65	28	75	140	200	-----	-----
7-0543.00	Gray Branch at Lutie, Mo.	0.23	279	1955-65	75	145	210	268	-----	-----
7-0575.00	North Fork River near Tecumseh, Mo.	561	8.29	1945-65	2,800	11,000	17,500	23,000	29,800	35,000
7-0580.00	Bryant Creek near Tecumseh, Mo.	570	8.83	1945-65	5,700	12,000	17,800	22,800	29,300	34,300
7-0585.00	North Fork River at Tecumseh, Mo.	1,157	8.04	1945-65	8,000	22,500	37,500	50,500	67,500	81,000
7-0615.00	Black River near Annapolis, Mo.	484	10.9	1940-65	7,000	22,000	32,500	41,000	50,500	58,000

APPENDIX II--continued

Flood Frequency Data for Streamgaging Stations in Missouri

Station number	Station name	Drainage area (sq mi)	Slope (ft per mi)	Period of record	Magnitude of flood, in cubic feet per second for indicated recurrence interval in years					
					1.2	2.33	5	10	25	50
7-0618.00	Brawley Hollow near Centerville, Mo.	1.00	133	1955-65	55	110	165	218	-----	-----
7-0632.00	Pike Creek tributary near Poplar Bluff, Mo.	0.28	111	1955-65	50	130	225	305	-----	-----
7-0645.00	Big Creek near Yukon, Mo.	8.36	53.3	1935, 1945, 1950-65	350	1,470	2,700	3,800	5,300	-----
7-0647.00	Fudge Hollow near Licking, Mo.	1.72	68.1	1957-65	45	85	170	275	-----	-----
7-0660.00	Jacks Fork at Eminence, Mo.	398	9.50	1922-65	2,750	12,000	19,500	25,600	33,500	39,000
7-0665.00	Current River near Eminence, Mo.	1,272	7.58	1922-65	9,000	27,000	41,500	53,500	68,000	79,000
7-0668.00	Sycamore Creek near Winona, Mo.	0.88	66.4	1955-65	65	140	225	305	-----	-----
7-0670.00	Current River at Van Buren, Mo.	1,667	5.92	1904, 1913-65	12,000	28,500	48,000	65,000	89,000	108,000
7-0680.00	Current River at Doniphan, Mo.	2,038	4.75	1904, 1915, 1919-65	9,000	32,000	53,000	70,000	92,000	109,000
7-0682.00	North Prong Little Black River at Hunter, Mo.	1.23	61.7	1958-65	175	310	450	575	-----	-----
7-0685.00	Little Black River near Fairdeal, Mo.	187	10.8	1936-42, 1955-65	2,500	8,000	15,500	22,600	32,500	-----
7-0691.00	Adams Branch near West Plains, Mo.	2.27	44.3	1955-65	240	380	560	720	-----	-----
7-0700.00	Kings Creek near Willow Springs, Mo.	4.91	45.0	1956-65	165	300	430	535	-----	-----
7-0702.00	Burnham Branch near Willow Springs, Mo.	1.27	58.6	1955-65	120	220	340	450	-----	-----
7-0705.00	Eleven Point River near Thomasville, Mo.	361	13.7	1951-65	1,400	5,700	10,200	14,200	19,700	-----
7-0715.00	Eleven Point River near Bardley, Mo.	793	10.1	1915, 1922-65	3,000	10,500	18,500	26,500	37,000	45,500
7-0718.00	Williams Spring Branch near Alton, Mo.	4.24	63.3	1955-65	120	330	610	880	-----	-----
7-1855.00	Stahl Creek near Miller, Mo.	3.86	41.3	1951-65	290	750	1,160	1,500	1,920	-----
7-1856.00	South Fork Stahl Creek near Miller, Mo.	0.94	66.7	1951-65	60	200	360	510	730	-----
7-1857.00	Spring River at Larussell, Mo.	306	9.84	1958-65	2,600	5,200	8,800	12,400	-----	-----
7-1859.00	O'Possum Creek at Jasper, Mo.	9.67	16.0	1955-65	600	1,150	1,600	1,960	-----	-----
7-1860.00	Spring River near Waco, Mo.	1,164	6.08	1924-65	8,200	20,000	32,000	42,700	59,000	77,000
7-1865.00	Turkey Creek at Joplin, Mo.	33	17.3	1933-39	700	1,370	2,000	2,600	-----	-----
7-1869.50	North Fork Carver Creek at Diamond, Mo.	0.33	100	1955-65	44	103	163	217	-----	-----
7-1870.00	Shoal Creek above Joplin, Mo.	410	8.34	1924-65	3,500	10,000	17,500	25,000	35,000	43,000
7-1885.00	Fost Creek at Seneca, Mo.	42	23.6	1943, 1945, 1949-65	200	2,200	4,800	7,300	12,000	-----
7-1890.00	Elk River near Tiff City, Mo.	872	7.09	1940-65	5,000	18,000	36,000	55,000	82,000	104,000

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